

# Housing and the Community

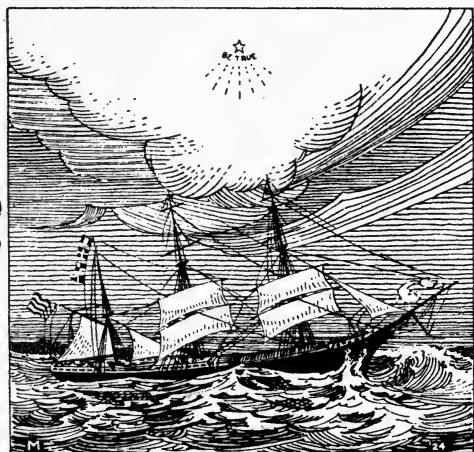
---

## Home Repair and Remodeling

RELATION OF HOUSING TO HEALTH,  
DELINQUENCY, INDUSTRIAL EFFICIENCY,  
SAFETY, CITIZENSHIP, RECREATION

---

HOME IMPROVEMENT AND REMODELING



JOHN IHLDER

1/-

Digitized by the Internet Archive  
in 2006 with funding from  
Microsoft Corporation



THE PRESIDENT'S CONFERENCE ON  
HOME BUILDING AND HOME  
OWNERSHIP

*Called by*  
PRESIDENT HOOVER

---

ROBERT P. LAMONT  
SECRETARY OF COMMERCE

RAY LYMAN WILBUR  
SECRETARY OF THE INTERIOR

*Joint Chairmen*

**PUBLICATIONS OF THE PRESIDENT'S  
CONFERENCE ON HOME BUILDING  
AND HOME OWNERSHIP**

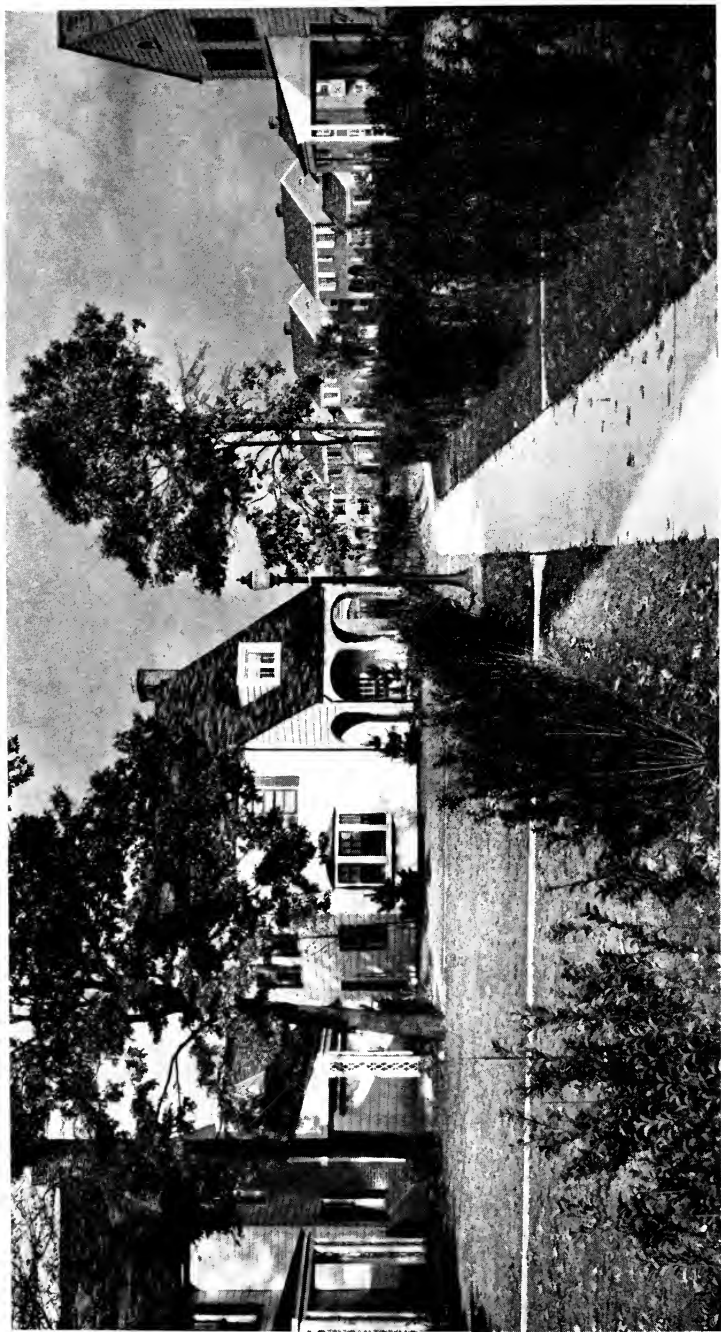
**FINAL REPORTS OF COMMITTEES**

JOHN M. GRIES AND JAMES FORD, *General Editors*

DAN H. WHEELER AND BLANCHE HALBERT, *Associate Editors*

- I. Planning for Residential Districts**
- II. Home Finance and Taxation**
- III. Slums, Large-Scale Housing and Decentralization**
- IV. Home Ownership, Income and Types of Dwellings**
- V. House Design, Construction and Equipment**
- VI. Negro Housing**
- VII. Farm and Village Housing**
- VIII. Housing and the Community—Home Repair and Remodeling**
- IX. Household Management and Kitchens**
- X. Homemaking, Home Furnishing and Information Services**
- XI. Housing Objectives and Programs**





*Photograph by Heinrichs Studio*

*Courtesy of City Housing Corporation*

The development of Radburn, New Jersey, built by the City Housing Corporation, has demonstrated how good housing involves community features for recreation and for safety, privacy and beauty. The interior block arrangement permits playspace free from traffic dangers. The photograph illustrates the amenities that accrue from residential development on a community basis.

Clarence S. Stein and Henry Wright, Architects.

# Housing and the Community—Home Repair and Remodeling

*Reports of the Committees on*

HOUSING AND THE COMMUNITY

JOSEPH H. PRATT, M.D., *Chairman*

RECONDITIONING, REMODELING, AND  
MODERNIZING

FREDERICK M. FEIKER, *Chairman*

---

*Edited by*

JOHN M. GRIES AND JAMES FORD

---

THE PRESIDENT'S CONFERENCE ON HOME  
BUILDING AND HOME OWNERSHIP  
WASHINGTON, D. C.

*Acknowledgment is made to the Secretaries of the Committees on Housing and the Community, and Reconditioning, Remodeling, and Modernizing, namely, James P. Leake, M. D., and C. O. Christenson for preliminary editing and frequent help in the preparation of these final reports for publication. Acknowledgment is likewise made to John C. Leukhardt for the compiling of the Index and Dan H. Wheeler for the detailed work of preparing this volume for the press.*

COPYRIGHT, 1932

BY THE PRESIDENT'S CONFERENCE ON HOME BUILDING AND HOME OWNERSHIP, ROBERT P. LAMONT AND RAY LYMAN WILBUR, JOINT CHAIRMEN. ALL RIGHTS RESERVED, INCLUDING THE RIGHT TO REPRODUCE THIS BOOK, OR PORTIONS THEREOF, IN ANY FORM.

PRINTED BY NATIONAL CAPITAL PRESS, INC., WASHINGTON, D. C., U. S. A.

## COMMITTEE ON HOUSING AND THE COMMUNITY

JOSEPH HERSEY PRATT, M.D., *Chairman*,  
Former President, American Climatological and Clinical Association,  
Former President, American Society for Clinical Investigation,  
Boston, Massachusetts.

William Irving Clark, M. D., Fellow,  
American Medical Association;  
Service Director, Norton Company,  
Worcester, Massachusetts.

Frank A. Craig, M. D., Associate Director,  
The Henry Phipps Institute,  
Philadelphia, Pennsylvania.

Miss Alice L. Edwards, Executive  
Secretary, American Home Economics  
Association, Washington,  
D. C.

Charles Elmer Gehlke, Professor of  
Sociology, Western Reserve University,  
Cleveland, Ohio.

Sheldon Glueck, Professor of Criminology,  
Harvard Law School,  
Cambridge, Massachusetts.

Murray P. Horwood, Department of  
Biology and Public Health, Massachusetts  
Institute of Technology,  
Cambridge, Massachusetts.

James E. Ives, Senior Physicist, U. S.  
Public Health Service, Washington,  
D. C.

Morton G. Lloyd, Chief, Section of  
Safety Standards, U. S. Bureau of  
Standards, Washington, D. C.

Elton Mayo, Professor of Industrial  
Research, Graduate School of Business  
Administration, Harvard University,  
Boston, Massachusetts.

Robert S. Moulton, Technical Secretary,  
National Fire Protection Association,  
Boston, Massachusetts.

Bernard J. Newman, Managing Director,  
Philadelphia Housing Association,  
Philadelphia, Pennsylvania.

Clarence A. Perry, Associate Director,  
Recreation Department, Russell Sage  
Foundation, New York, New York.

Miss Agnes L. Peterson, Assistant  
Director, Women's Bureau, U. S.  
Department of Labor, Washington,  
D. C.

Milton J. Rosenau, M. D., Department  
of Preventive Medicine and Hygiene,  
Harvard Medical School,  
Boston, Massachusetts.

Royd R. Sayers, M. D., Chief Surgeon,  
Bureau of Mines, U. S. Department  
of Commerce, Washington, D. C.

Clifford R. Shaw, Institute of Juvenile  
Research, Chicago, Illinois.

Wilson G. Smillie, M. D., Professor  
of Public Health Administration,  
Harvard University School of Public  
Health, Boston, Massachusetts.

A. Warren Stearns, M. D., Commissioner  
of Correction, Commonwealth of  
Massachusetts, Boston, Massachusetts.

Edwin H. Sutherland, Professor of  
Sociology, University of Chicago;  
Chairman of Committee on Criminal  
Statistics, American Prison Association,  
Chicago, Illinois.

Joseph P. Tufts, Assistant Director,  
Pittsburgh Housing Association,  
Pittsburgh, Pennsylvania.

Miss Edna Noble White, Director,  
Merrill-Palmer School, Detroit,  
Michigan.

Mrs. Eva Whiting White, President,  
Women's Educational and Industrial  
Union, Boston, Massachusetts.

Sidney J. Williams, Director, Public  
Safety Division, National Safety  
Council, Chicago, Illinois.

Edwin B. Wilson, Department of  
Vital Statistics, Harvard University  
School of Public Health, Boston,  
Massachusetts.

JAMES P. LEAKE, M.D., *Secretary*,  
Senior Surgeon, U. S. Public Health Service,  
Washington, D. C.

## COMMITTEE ON RECONDITIONING, REMODELING, AND MODERNIZING

FREDERICK M. FEIKER, *Chairman*,  
Director, Bureau of Foreign and Domestic Commerce,  
U. S. Department of Commerce, Washington, D. C.

- |   |  |
|---|--|
| <p>Howard H. Bede, Business Manager,<br/>National Real Estate Journal, Chi-<br/>cago, Illinois.</p> <p>George L. Bliss, President, New York<br/>State League of Savings and Loan<br/>Associations, New York, New York.</p> <p>Lyman J. Briggs, Assistant Director<br/>for Research and Testing, U. S.<br/>Bureau of Standards, Washington,<br/>D. C.</p> <p>Joseph E. Chandler, Architect, Bos-<br/>ton, Massachusetts.</p> <p>Miss Emily W. Dinwiddie, Director,<br/>Children's Bureau, State Depart-<br/>ment of Public Welfare, Richmond,<br/>Virginia.</p> <p>F. Stuart Fitzpatrick, Manager, Civic<br/>Development Department, Chamber<br/>of Commerce of the United States,<br/>Washington, D. C.</p> <p>H. P. Holman, Senior Chemist, In-<br/>dustrial Farm Products Division,<br/>U. S. Department of Agriculture,<br/>Washington, D. C.</p> <p>Bernard L. Johnson, Editor, Ameri-<br/>can Builder and Building Age, Chi-<br/>cago, Illinois.</p> | <p>Mrs. William F. Lake, President,<br/>Arkansas Federation of Women's<br/>Clubs, Hot Springs, Arkansas.</p> <p>Joseph D. Leland, Former Vice Presi-<br/>dent, United States Housing Cor-<br/>poration, Boston, Massachusetts.</p> <p>Miss Grace Morin, Chairman, House-<br/>hold Art Department, N. Y. State<br/>College of Home Economics, Cor-<br/>nell University, Ithaca, New York.</p> <p>R. Brognard Okie, Architect, Phila-<br/>delphia, Pennsylvania.</p> <p>Miss Ethel B. Power, Editor, House<br/>Beautiful, Boston, Massachusetts.</p> <p>Mrs. Charles W. Sewell, Director,<br/>Home and Community Work,<br/>American Farm Bureau Federation,<br/>Chicago, Illinois.</p> <p>Frank S. Slosson, Former Chairman,<br/>Property Management Division,<br/>National Association of Real Estate<br/>Boards; Director, National Asso-<br/>ciation of Building Owners and<br/>Managers, Chicago, Illinois.</p> <p>Adam Trieschman, Crossett-Watzek-<br/>Gates Lumber Industries, Chicago,<br/>Illinois.</p> |
|---|--|

C. O. CHRISTENSON, *Secretary*,  
Division of Building and Housing, Bureau of Standards,  
U. S. Department of Commerce, Washington, D. C.



## FOREWORD

The fact that a man's house is his castle and that every man and woman seeks individuality in the home and feels free to do as he or she pleases there, has made it easy to continue certain evils of housing that have come down to us from the Middle Ages. Health and safety factors have compelled modification of these faulty concepts to the extent of bringing about the enactment of building codes and sanitary regulations. Restrictive measures of various kinds play a part in house construction. Some of these restrictions have been detrimental rather than useful, due to the absurdity of holding over outgrown technical ideas. But all is not well with housing—for a single day's inspection of sixty-three houses in one section of Philadelphia revealed ninety violations of the housing law, including obstructed drainage, lack of repair and the accumulation of filth and rubbish. Unless there is an epidemic of some kind it is almost impossible to get the people aroused over situations of this kind. A single violation of the pure food laws makes front-page news throughout the country, but violations of the housing law are not even local news.

Housing should be a matter of public interest and concern. We insist upon protection from bad food, yet housing conditions are such that they often encourage disease. We try to protect ourselves against ignorance with compulsory school laws, yet we readily tolerate conditions of overcrowding, lack of space and lack of beauty that to a large extent negative the spiritual and intellectual growth fostered in the school. We seek constantly to reduce traffic accidents, yet until lately we have not been aroused to the planning of neighborhoods so as to protect people from dangerous through-traffic. Society accepts many responsibilities for the moral and physical well-being of its members. However, we have been singularly backward in accepting practical responsibility for the proper construction and protection of the American home, even in our most advanced cities.

There seems to be a widespread theory that the community has nothing to do with such matters, but we know from what has been accomplished in certain cities, that individual or cooperative initiative in the handling of certain zones has produced a remarkable improvement in housing. The President's Conference on hous-

ing found that frequently there were such evils as wasteful subdivision of land, instability of property values, costly home construction and home financing, jerry building, slums, and ugliness, due to the old habits of thought. Housing reform cannot be widespread until there is a change in the general concept of the community's relationship to the problem. It will take much training and education to simplify the process of removing the obstacles to moral and physical health ascribable to bad housing. Along with this change there can readily go higher standards of housing in relationship to human health. The simple, elementary sanitary requirements backed by the law have had little general attention in most of our cities. Ordinarily, the law and public opinion are both satisfied if a man keeps his house from becoming a source of infection for typhoid or other filth diseases. The public is not concerned if he keeps his family in sunless and unventilated rooms favoring the development of tuberculosis. The community, in the long run, must pay the bills for tuberculosis. Why not interest itself in seeing that the sunlight is let into the homes, particularly those that house children? Why not develop the demand for a home that is clean and sanitary and with sufficient space, privacy, quiet, sunshine and ventilation for physical and mental health, even if we cannot demand these requirements by act of law. We can do much to insure the health of citizens, thereby preventing the spread of disease, by satisfactory even though simple housing.

The authors of this report repeatedly point out that the safety and the wholesomeness of the home depend upon the neighborhood as well as upon the house itself. It is almost impossible to have good housing in the middle of a slum. There should be neighborhood planning for residential areas, for from whatever angle the problem of housing is approached, this country still suffers from the antique thinking that, "What was good enough for my father is good enough for me." We know now how badly many of our forefathers were housed. We know, too, that with proper plans, great changes can be made in individual homes as well as in communities. In housing, we are dependent to a considerable extent upon our neighbors. The right of each individual to do as he thinks proper with his own property, often leads to the lowering of property values in an entire neighborhood, because of a single dilapidated and run-down house.

The interests of individuals differ, but some way should be found to make it possible for a community to keep its houses in a uniformly good condition. The house is like a living thing. It requires constant attention and repair. Reconditioning and modernizing of dwellings would prolong the life of the average American home neighborhood. Ought we not to be able to work out some compromise between the rights of the individual and the rights of the community in the housing question? Every man gains by protecting his own property and also by having protection from the deterioration of the neighborhood, whether that deterioration be in beauty, in quiet, in safety, or in a dozen other ways. Forcing a man to keep up his property protects his pocketbook in the matter of his equity in the house and in his ability to rent or sell, or to borrow money on it.

We have so much established housing, that only by reconditioning and modernizing can we expect to see much improvement in the general housing program in the years just ahead. The low-income groups of the population face the lowest standards. Their homes need the most improvement. To build new houses in urban centers at the present time would cost too much for those earning \$1,500 a year or less. Either these members of the population must move to cheaper neighborhoods, or they must have adequate housing made available through the repair and modernization of existing buildings.

Usually the home is taken care of by fits and starts. Only the pressure of leaky roofs or broken windows brings about reconditioning. There is considerable technical skill required to keep a house up to standard. A certain amount can be done at odd times, which will fit into a general plan of keeping the house consistently up to date. The special merit of the Conference committee's report on this subject is that it analyzes for the home owner the problems involved in home improvement and, while encouraging modernization, its program tends to protect him from waste.

I feel satisfied that the public-spirited men and women who worked so hard to compile the data in this volume will have a high reward in the reorganization of our housing activities which I am convinced will result from the President's Conference.

RAY LYMAN WILBUR.

August 1, 1932.

## INTRODUCTION

The best strategy in overcoming any type of evil is to ascertain the exact number, type and location of the enemy forces and then mass one's own forces in such manner as to make victory certain. In the field of housing the application of this principle is to ascertain not the relation of housing to disease but rather the relation of each factor in housing to each specific type of human need or ailment. Moreover, since unfortunate conditions seldom operate singly on an individual but combine in massed attack, the nature of the other factors which, in conjunction with housing, produce disease, vice and crime, should be ascertained.

The Committee on Housing and the Community was made up of persons who are among the Nation's leading specialists in pathology, criminology, sociology and related fields. They have examined the hundreds of previous studies in these fields in order to make as precise a statement as possible of the interrelation between the various factors which go to make up housing and which produce specific pathological conditions. This is the first comprehensive compilation of its kind and should prove exceedingly valuable to future students of the subject. A merit of this report, exemplified probably best by the section on Housing and Delinquency, lies in the willingness, and even the eagerness, of its authors to admit how little is definitely known and how much evidence—sometimes conflicting evidence—there is that other factors than housing fill a major role in the production of delinquency and that housing is never an exclusive cause though presumably a frequent concomitant factor.

We are much less likely to go astray or to waste effort if we know precisely where the evil lies and by what precise means it is to be overcome. Careful study of this report will help substantially the massing of measures to overcome the human ills demonstrably associated with housing. Moreover, it offers a rich and little studied field for continuing research and for that reason should be of particular interest to the universities, especially their departments of sociology, engineering and medicine, and to foundations which are continuously seeking to invest their funds where they will count for most in overcoming conditions that thwart individual and social development.

\* \* \* \* \*

The Committee on Reconditioning, Remodeling, and Modernizing was asked to analyze the principles and practices which would aid families in renovating their houses and thus save time, energy and money of householders which are so frequently wasted by reason of out-of-date or poorly arranged structures or antiquated equipment. They were, in addition, requested to analyze the problem of depreciation and obsolescence, to study the methods and practices of existing agencies or sources of advice in the field of reconditioning and remodeling and to determine how more effective disinterested advice may be made generally available to owners of old homes in meeting their individual problems.

The problems faced by this committee reach into virtually every household because even newly built houses are in need of home care and repair after a very few months, or at best a year or two. The committee felt so strongly that direct advice to the householder was its most essential task that it divided its attention about equally between its general report, which will be found in Chapter VI and which is a summary of principles and practices, and its special advice to householders, which comprises Chapter VII. These unquestionably are useful documents worthy of study by all householders.

Fortunately, this committee is continuing its endeavors following the Conference in cooperation with the Division of Building and Housing of the United States Department of Commerce by encouraging home care and repair as well as remodeling and modernizing through local volunteer committees and as a means of emergency employment relief.

The committee was probably right in believing that the analysis of types and rates of depreciation and obsolescence for each part of the house, and for each type of equipment built into it, would require a long-continuing and well-endowed study by disinterested research agencies. The scientific studies of depreciation and obsolescence still remain to be made and should be allocated to some technically competent and completely disinterested continuing agency such as the United States Bureau of Standards, or some university engineering school or well-endowed foundation. By placing these studies with such an agency, every detail of the construction of houses might be recorded and the depreciation factors noted for each such detail over a period of one or two generations

so as to ascertain their relative rates of loss of value and the relative merits of each material, article of equipment or construction practice.

\* \* \* \* \*

While Part One of this book will be of greatest interest to scientists and the persons concerned with public policy, Part Two will be of chief interest to realtors, home economists and householders. The merit of each section of this volume is particularly apparent when considered in conjunction with the other volumes of this series. The bearing of the section on Housing and the Community upon the Planning for Residential Districts is, for example, very close. Likewise the comparison of the study of Reconditioning, Remodeling and Modernizing with the study of Slums and Blighted Areas as well as those on Design, Construction and Equipment is certain to yield valuable suggestions with regard to future housing policy.

JOHN M. GRIES,  
JAMES FORD.

August 17, 1932.

# CONTENTS

	PAGE
PART I. HOUSING AND THE COMMUNITY .....	1
INTRODUCTION .....	1
CHAPTER I. HOUSING AND HEALTH .....	4
Crowding .....	5
Tuberculosis .....	6
Typhoid Fever .....	6
Hookworm Disease .....	6
Diseases Spread by Rodents and Vermin .....	7
Malaria .....	7
Plague .....	7
Typhus Fever .....	7
Infant Mortality .....	8
Relation of Housing to Immunity .....	8
Venereal Diseases, Morals, and Decency .....	8
Water Supply, Sewage, and Disposal of Wastes .....	9
Ventilation .....	9
Lighting .....	9
Gases, Odors, Smoke, and Dust .....	10
Noise and Repose .....	10
Accidents .....	11
Care and Preservation of Food .....	11
Cleanliness .....	12
Housing and the Family .....	12
Conclusion .....	12
CHAPTER II. HOUSING AND DELINQUENCY .....	13
Crime Causation .....	13
Housing and Delinquency as a Statistical Problem .....	19
Some Formal Characteristics of Delinquency Areas .....	22
Conclusion and Recommendation .....	47
Suggested Research Projects on Housing and Delinquency .....	48
CHAPTER III. THE EFFECT OF HOUSING CONDITIONS UPON THE EFFICIENCY OF INDUSTRIAL WORKERS .....	50
CHAPTER IV. HOUSING AND SAFETY .....	54
Summary .....	54
Introduction .....	55

	PAGE
Suggestions for Building a Home.....	57
Suggestions for Home Equipment .....	63
Suggestions for Management and Use of the Home .....	70
The Community Fire Problem .....	76
Street Accidents in Residential Districts .....	79
Education and Community Organization for Safety ..	81
Legislation .....	83
Research .....	85
CHAPTER V. HOUSING AND CITIZENSHIP, RECREATION, AND EDUCATION .....	86
Housing and Citizenship .....	86
Housing and Education .....	93
Housing and Recreation.....	97
Summary .....	102
Recommendations .....	104
APPENDIX I. CRIME CAUSATION AND HOUSING.....	105
APPENDIX II. STATISTICS OF HOME CASUALTIES.....	201
APPENDIX III. STATISTICS OF FIRE LOSSES .....	205
APPENDIX IV. DIGEST OF FACTS OF FATAL AND NONFATAL ACCIDENTAL INJURIES IN THE HOME IN RECENT YEARS	217
APPENDIX V. LIST OF REFERENCES TO AVAILABLE MA- TERIAL ON SAFETY.....	222
PART II. RECONDITIONING, REMODELING, AND MODERNIZING	223
CHAPTER VI. NEED FOR HOME IMPROVEMENTS .....	223
Introduction .....	223
Essential Facts .....	224
Purpose of the Report .....	225
Recognition of the Need for a Report.....	225
Advantages of Reconditioning, Remodeling, and Mod- ernizing .....	225
Stimulating Employment during Slack Periods.....	226
Who Should Promote Home Improvements? .....	226
Information for the Home Owner .....	226
Interior of House .....	227
Exterior of House .....	227
Reconditioning the Home .....	228
Modernizing the Home .....	230
Recommendations .....	232



	PAGE
CHAPTER VII. SUGGESTIONS TO HOUSEHOLDERS ON HOME	
IMPROVEMENTS .....	234
Reconditioning Is Periodically Necessary.....	234
Fundamentals .....	235
Home Remodeling and Modernizing Are Often Wise	238
Standards and Ideals .....	245
Safety .....	246
Health .....	250
Interior Arrangements .....	261
Electricity in the Home.....	269
Gas in the Home .....	271
APPENDIX. HOME INSPECTION CHECK-LIST .....	272



# PART I. HOUSING AND THE COMMUNITY

## INTRODUCTION <sup>1</sup>

The work of this committee deals with the medical and sociological aspects of housing. The committee was divided into five groups to study the relation of housing to various physical, social, and intellectual states, namely, health, safety, industrial efficiency, delinquency, education, recreation, and citizenship.

A group of experts has studied existing knowledge in each of these subjects in its bearing on housing and the home. These authorities have generously given their time to the preparation of reports which present detailed information regarding the measures that should be taken in the construction, rehabilitation, and maintenance of homes to safeguard the members of the family in their daily life.

The papers prepared by members of this committee present in a clear and readable form facts that should become in time the common knowledge of all home builders. The extent to which poor housing affects health and character is not known. It is only one factor in producing disease and degeneracy. Poor housing has as its allies poverty, ignorance, vice, and uncleanness. In dealing with the problems presented by dwellers in the slums of our large cities consideration must be paid to all these forces of evil.

It is, however, a law of nature that physical and mental health are dependent on a satisfactory adaptation to the environment. If the environment is bad, the powers of adaptation must exert themselves to make the proper adjustment. If adaptation is not attained, physical or mental disease results.

Poor housing constitutes a difficult environment, one that makes great demands on the physical and psychic vitality of the occupants of the unsanitary house. As a result, there is often maladjustment, and this may express itself as disease or delinquency.

There is a relation between poor housing and certain diseases, but it is usually indirect as the group headed by Professor Milton J. Rosenau, of Boston, clearly brings out in Chapter III. Overcrowd-

---

<sup>1</sup> By Joseph H. Pratt, M.D., Chairman of the Committee on Housing and the Community.

ing is one of the chief factors to be considered in studying the relation of housing to disease. The presence of more persons than rooms in a house constitutes room crowding. In a recent study made under the auspices of this committee of housing conditions of a group of patients with pulmonary tuberculosis seen at the Boston Dispensary, it was found that overcrowding existed. In a disease such as tuberculosis that is spread from person to person, overcrowding is especially bad. There are data which suggest that overcrowding increases infant mortality; but here, as in tuberculosis, other causative agents exist. Overcrowding certainly favors the spread of the common cold and the contagious diseases of childhood.

Sunlight is important for good nutrition and prevents rickets.

Every house should be well screened to exclude insects. Flies are carriers of disease, especially intestinal infections. In the South the anopheles mosquito transmits malaria.

Rat-proofing is important, as rats may infect food with bacteria and severe diarrhea results; and the fleas of the rat may convey to man typhus fever and plague.

Hookworm disease and typhoid fever are due to the contamination of food with excreta. This can be prevented by adequate sewage disposal.

The relation of housing to safety is considered by Dr. Morton G. Lloyd of Washington and his associates in Chapter IV. Its importance is evident from the fact that nearly as many persons lose their lives from accidents in the home as are killed by automobiles. Falls are the most frequent cause of death. Fires in dwellings cause an annual loss of \$160,000,000. Measures for safety are fully described in this report. Education of both school children and adults should reduce greatly the loss of life and property. Community planning can reduce automobile accidents. Wide publicity should be given to the urban neighborhood unit scheme devised by Clarence A. Perry of New York,<sup>2</sup> as its adoption would reduce motor fatalities.

---

<sup>2</sup> See Committee on Regional Plan of New York and Its Environs, "Neighborhood and Community Planning," *Regional Survey of New York and Its Environs*, New York, The Committee, 1929, Vol. VII. (Monograph One, Perry, Clarence A.) See also "Planning for Residential Districts," *Publications of the President's Conference on Home Building and Home Ownership*, Washington, 1932, Vol. I.

The effect of housing conditions upon the efficiency of industrial workers has been investigated by a group headed by Dr. W. Irving Clark of Worcester, Massachusetts. An extensive inquiry reveals general agreement that good housing has an excellent effect on the morale of workers and on production. There is some evidence that, for men employed in industrial plants, renting houses has proved more satisfactory than home ownership. (See Chapter III.)

A group of sociologists and criminologists under the chairmanship of Mr. Clifford R. Shaw of Chicago has made a careful, critical study of the relation of housing to delinquency. The causation of crime is discussed and then the statistical problem is taken up. It is found that the data available are of a general character that do not show housing conditions to be the cause of crime. The conclusion drawn from the survey is "that delinquency is concentrated in the areas of bad housing and is associated with a complex of conditions, of which bad housing is only one." The committee recommends improved housing in neighborhood units as outlined by Mr. C. A. Perry. Endorsement has already been given to this project in discussing the report on safety.

Suggested research problems are described by Mr. Shaw at the conclusion of Chapter II.

The relation of housing to citizenship, recreation, and education is discussed by Mrs. Eva Whiting White of Boston and her able associates in Chapter V, an interesting and instructive report. This group, like the two preceding ones, gives its approval to the plan of urban neighborhood communities designed by Mr. Perry.

In considering the problems connected with housing and the community, it should be emphasized that not less than 52 per cent of the inhabitants of 72 typical cities pay less than \$35 a month for rent. To secure for these urban dwellers with small incomes, homes that provide conditions essential for health, safety and happiness is a problem for other committees of the Conference to consider.

A study of their reports leads one to a realization of the many advantages of rural homes over city dwellings. In the country, many of the desirable features of the urban neighborhood community plan are already available.

## CHAPTER I

### HOUSING AND HEALTH<sup>1</sup>

Housing has an evident relation to health. This relationship is partly intimate, but mainly indirect. Bad housing may increase the occurrence of sickness and death rates, but ordinarily this influence defies quantitative expression. The reason for this is that much of the effect of the house upon health is vague, uncertain, and often indeterminate. The situation is complex with many unknowns.

Poor housing is almost always associated with poverty, with ignorance, with inadequate and unsatisfactory food, with scanty and ineffective medical and nursing service, with monotonous or difficult labor for its occupants; with noise, bad air, dust, and nuisances and other significant factors which determine the health of an individual.

The relationship between housing and health is so apparent that a few diseases have been called "house diseases." Such is the case with tuberculosis, not, as we now understand it so much on account of the house, but rather as a result of contact with an open case of tuberculosis in the home, irrespective of whether the house is good or bad.

It is difficult to separate the factors of crowding, heredity, race, personal habits, poverty, diet, and other hygienic and sanitary influences from the actual housing conditions. A house, after all, is an instrument that may be abused. Thus, a good house may be crowded and unsanitary, while a poor house may be clean and fairly adequate.

That a house may promote good health, it must be on a proper site, in a good location, and designed to favor an adequate supply of fresh air and sunshine; it must be built to promote cleanliness and dryness, and be a help to achieve a measure of sanitary isolation. Good housing furthermore encourages higher standards of

---

<sup>1</sup> Prepared for the Committee on Housing and the Community by the Group on Housing and Health, M. J. Rosenau, M. D., Chairman, Murray P. Horwood, James E. Ives, and Wilson G. Smillie, M. D., aided by contributions from Haven Emerson, M. D., L. I. Dublin, and E. E. Willison, M. D.

living, and this promotes better personal hygiene and improved sanitation of the environment.

Housing conditions may be taken as a good index of the general sanitary condition and hygienic habits as well as the economic status of the occupants. Strict laws concerning new construction should be rigidly enforced, especially with respect to safety, air, space, sunshine, water supply, disposal of wastes, cellars, toilets, kitchens, etc. Requirements for construction are of limited value unless supplemented by control of occupancy to limit room or house crowding. A good zoning system has health advantages.

There is a difference of opinion as to the function of a health officer with reference to housing. It is the judgment of this committee that this problem comes under the purview of good health administration, although it is largely a broad economic and social problem. Most of the laws of the United States concerning housing deal more with structural safety than with sanitary requirements.

### Crowding

Overcrowding is one of the most important factors in housing and its relation to health. Strict regulations should be enforced to prohibit the overuse of living and sleeping rooms. Most of the diseases that afflict mankind are contracted rather directly from person to person, and these diseases are properly called contact infections. People who work together, play together, live together, eat together are very apt to suffer unnecessarily with diseases which are passed from one to another on account of close personal association. This is the case with a long list of diseases such as common colds, sore throats, bronchitis, influenza, diphtheria, scarlet fever, mumps, chickenpox, whooping cough, cerebrospinal fever, measles, and even pneumonia and tuberculosis. House epidemics are very common. These diseases and others are spread by secretions from the mouth and nose through droplet infection, hand-to-mouth infection and other means of conveyance. It is well known that crowding, whether in a house or otherwise, favors the spread of contact diseases. It is clear that the house cannot be accused of spreading this large group of contact diseases which often run in epidemic form, although it is equally evident that house crowding favors their spread and gives them impetus.

More persons than rooms in a household creates a condition

of crowding. In the United States everything more than 1.5 persons per room is considered overcrowding. The size of the rooms and the number of persons per room are more significant than the number of persons per block or per acre in a crowded district. The ideal conditions for any family would be a single detached house surrounded by a plot of ground, with adequate lawns and facilities for a small flower and vegetable garden and playspace.

### **Tuberculosis**

Tuberculosis is often spoken of as a "house disease." It is, in fact, a family affair because it is caught by contact with an open case. One who lives in close contact with an active case of pulmonary consumption, without proper precaution, runs a great hazard of becoming infected and reinfected. This is especially disastrous with young children, and the danger increases if the house is crowded and otherwise unsanitary. The house itself need not be blamed so much for the spread of tuberculosis as its occupants. Tuberculosis will spread from person to person in a palace as well as in a tenement or hut.

Although no direct relationship between housing and tuberculosis has been shown, nevertheless the house is a factor in this disease and may be of some importance both in its prevention and in its cure.

### **Typhoid Fever**

The spread of "filth diseases," like typhoid fever, is facilitated in houses where there is inadequate water supply, poor arrangements for the disposal of sewage, where flies abound and unsanitary conditions prevail. There is therefore a direct relationship between a house, including its facilities, and the intestinal infections. These, in addition to typhoid fever, are cholera, the dysenteries, and various diarrheal diseases and summer complaints of infants.

### **Hookworm Disease**

Hookworm affects the health and vitality of millions of people living in the tropical belt and neighboring warm countries of the world. Hookworm disease may seriously undermine health and even result in untimely death. This infestation is contracted where primitive and unsanitary conditions with reference to disposal of human excreta exist. Hookworm disease is due to soil pollution



with human feces. The danger is mainly in the neighborhood about the house, particularly where people go barefoot. This is one of the best illustrations we have of the relation of the equipment of the house and its surroundings to health. Hookworm infestation is eliminated in a well-ordered city with a good water carriage system for the sanitary disposal of sewage. Hookworm infestation is therefore a rural disease. The home in the country should dispose of its human excreta by means of privies if no better method can be provided.

### **Diseases Spread by Rodents and Vermin**

A house may be so constructed and ordered as either to favor or to discourage the harboring of rats and mice, which can convey disease to man. House construction and maintenance may have important relations with the insect-borne diseases, particularly malaria and plague.

#### **Malaria**

The classic experiments on the Roman Campagna demonstrated that persons may live in a hovel in the most malarious district in the world throughout the fever season and escape infection, provided they stay within well-screened protection from sundown to sunrise. The anopheles mosquito which conveys malaria is nocturnal in its habits, and therefore a well-screened house, intelligently used, will protect against malaria. The screens must be no less than eighteen meshes to the inch and otherwise tight and durable. In the United States malaria is largely focal as to region and mainly rural.

#### **Plague**

Plague is a disease primarily of rats and other rodents, secondarily of man. The infection is conveyed from the rat to man through the bites of fleas. Plague is epidemic only in those parts of the world where the houses are so constructed or used as to harbor rats. Rat-proofing, therefore, becomes an important health problem intimately associated with both construction and the use of the house. This is one of the relationships between housing and health that is clear cut and rather intimate.

#### **Typhus Fever**

European typhus fever is spread mainly by means of body lice, while endemic typhus and similar fevers in the United States are

spread by fleas, ticks, and other biting insects. Therefore, the control of typhus fever depends not only upon personal cleanliness but also upon houses that are free of vermin.

### **Infant Mortality**

Many factors are involved in infant mortality. Housing is only one in a complex situation. It is difficult to dissociate the influence of the house itself from the many other causes of the high death rate during the first year of life when the flame flickers feeblest. The house may be so constructed or arranged as to retain and accumulate heat and humidity in summer, which has a withering effect upon babies; or it may be cold, damp, chill, and sunless in wintertime which strains vitality, reduces resistance and predisposes to trouble. The fact that housing is only one factor in this situation is evidenced by the results of some studies which indicate that the infant mortality is better in certain tenement districts than in more favored sections of large cities. Nevertheless, most studies on this subject conclude that regardless of race stock, the more persons per room and the more families per dwelling, the higher the infant mortality.

### **Relation of Housing to Immunity**

Health may be undermined and resistance broken by the unhygienic and unsanitary conditions of poor housing. Cold, gloomy, damp, and cheerless rooms, lack of opportunity to take advantage of healthful qualities in sunshine, the bad air caused by poor ventilation, and the irritating dust of untidy homes may depress vitality and tone and materially affect efficiency. Good health does not consist simply in avoiding disease, but in maintaining the best quality of physical soundness, mental vigor and moral tone. These desirable qualities of citizenship and factors of health are promoted by good housing and discouraged by poor housing.

### **Venereal Diseases, Morals, and Decency**

About ten per cent of syphilitics contract their infection in an innocent way. This percentage is very much higher among primitive peoples who live in crowded houses and ignorance. Housing affects health, morals, and progress both directly and indirectly. Bad housing is one component of a vicious circle of disease, others of which are drink, poverty, vice, indifference, and ignorance.

## **Water Supply, Sewage, and Disposal of Wastes**

**Water Supply.** A safe and adequate water supply is one of the primary requirements of hygienic living. It must be conveniently available to be truly serviceable. It is difficult to practice adequate cleanliness without an abundant supply of good, clean water.

**Sewage.** In cities, the water carriage system promptly and satisfactorily removes material. Under rural conditions, a privy adequately built and properly cared for may fulfill sanitary requirements. Running water with facilities for washing the hands should always be provided in or near the toilet.

**Wastes.** Where garbage is allowed to accumulate or is strewn about, flies and rodents are attracted and noisome odors may be given off. Where rubbish is allowed to gather, a fire hazard is created. The collection and disposal of such wastes is a community problem. There should be adequate, periodic collections of garbage, rubbish, ashes, and other forms of refuse. Annual clean-up campaigns should not be used as substitutes for daily cleanliness.

## **Ventilation**

Fresh air, well conditioned, is essential for the best level of health and efficiency, and every dwelling should be so constructed and used as to obtain the amount required. Heating and ventilation go hand in hand.

Good air depends more upon its physical condition than upon its chemical composition. The important factors are temperature, humidity, and motion of the air. As a rule, dwelling houses do not need artificial systems of ventilation, for it has been found that window ventilation carried out intelligently meets fairly well the demands of hygiene. It is practical to cool houses in the summertime and condition the air, and this feature deserves more attention than has been given it.

## **Lighting**

Good lighting, both natural and artificial, is necessary. Proper illumination of a house makes for better health, aids cleanliness, prevents accidents, and promotes cheer. It is part of the program for the conservation of vision.

There is a direct relationship between rickets and the ultra-vio-

let rays found in sunshine. The prevention of this disease is therefore in part a function of good housing. The ultra-violet rays which are antirachitic do not pass through ordinary window glass. Certain types of glass, however, are now on the market which allow a fair percentage of the rays to pass. Such glass can be used to advantage in sun parlors, nurseries, and sleeping porches. The windows of a house should be as large as structural and heating considerations will permit.

Artificial lights should be arranged to avoid glare and flicker. Electric bulbs are the least objectionable from a hygienic standpoint, and they should be arranged to avoid eye strain.

### **Gases, Odors, Smoke, and Dust**

The gas most to be feared in a house is carbon monoxide. This comes from heating apparatus in which there is imperfect combustion on account of insufficient supply of oxygen. Carbon monoxide is a seriously poisonous gas and is often generated from furnaces in cellars and from hot-water heaters in kitchens and bathrooms. Many fatalities from this source have occurred. Carbon monoxide also enters the home as a component of illuminating gas, and special care must be taken to prevent leaks where this is used.

Smoke comes mainly from the neighborhood out-of-doors and not only is objectionable but also has a detrimental effect upon health.

Indoor dust is irritating and more apt to contain live microorganisms which produce infection than outdoor dust. The dust nuisance both within and without the house should be, so far as possible, controlled to prevent whatever hazard is connected with it.

### **Noise and Repose**

Noise has a detrimental effect upon health, and houses should be so located and constructed as to minimize this nuisance. To maintain health and efficiency at their best levels, favorable opportunities are needed for sleep, repose, and relaxation. Housing cannot be considered successful unless it meets these conditions.

Housing cannot be accused of being directly responsible for nervous diseases although an excellent case may be made for damage to mind, emotions, conduct, and personality by the crowding, noise, lack of privacy, and conditions preventing quiet rest which accompany crowded living quarters, at whatever economic level.

### Accidents

Some 30,000 deaths are caused each year in the United States through accidents in houses. Many more (4,500,000) nonfatal but serious and disabling injuries occur. These are due in the main to fire, falling on stairs and slippery floors, in bathtubs, etc. Most of these accidents are preventable. They are matters of structural concern and administrative practice in the household.

Every home should have a supply of essential equipment for emergencies that arise from time to time in every household. The following list has been suggested for the family medicine chest for first-aid:

One-inch adhesive compress. (These are the ideal dressings for the small cut and scratch. They usually are sold in boxes containing approximately sixteen.)

Sterile gauze squares, about three inches by three inches in individual, sealed envelopes. (These are for use on larger wounds and small burns, approximately ten for the ordinary medicine cabinet.)

Sterile gauze, one yard square, folded four or six inches wide, in protected roll. (For large burns and wounds.)

Triangular bandages. (Two may be made from a square yard of muslin cut diagonally across.)

One-inch gauze roller bandage.

Two and one-half-inch gauze roller bandage.

One four-ounce bottle  $3\frac{1}{2}$  per cent tincture of iodine for use as a wound antiseptic. (This is the U. S. P. tincture diluted with an equal volume of dilute 50 per cent alcohol. Bottle should have a rubber stopper and be kept tightly corked, as it becomes stronger if evaporation takes place.) Instructions should accompany package that most wounds do better if a sterile dressing is applied without iodine.

Tube of petrolatum (petroleum jelly, vaseline).

One-pint bottle acetone. (This may be safely used in washing dirt from small wounds before the antiseptic is applied.)

Aromatic spirits of ammonia. (A three-ounce bottle should be large enough. It should have a rubber stopper.)

Toothpicks for use in making swabs for applying iodine.

Absorbent cotton. (Small package for use in making swabs. Also may be used as sponge with acetone in cleansing small wounds.)

Adhesive tape, approximately one inch by five yards.

Ice bag.

Hot-water bottle.

### Care and Preservation of Food

Food poisoning is eminently associated with lack of proper care, preservation, handling, and cleanliness of food in the home as well as elsewhere. Good housing equipment, therefore, must provide facilities to avoid these preventable troubles.

### Cleanliness

Cleanliness is the heart and soul of sanitation. No home can be considered satisfactory from the standpoint of health unless it is so constructed and managed as to keep it clean in all its parts. Cleanliness from a health standpoint means not only physical or aesthetic cleanliness, but involves biologic cleanliness. One of the most important health habits so far as cleanliness is concerned is washing the hands before eating or handling food, and always after a visit to the toilet.

### Housing and the Family

The house should be more than a shelter; it should be a home for the family. The family is the sanitary unit of society. The home is the citadel of organized family life, and the family is the basis of public health. Anything which tends to foster home life and make it comfortable and happy makes for a stable social order and facilitates good health administration. The house is the home of some members of the family for twenty-four hours a day, and for all members at least eight hours a day. It therefore of a necessity has an effect upon the health of its occupants as well as their efficiency and capacity for service in the world's work.

### Conclusion

Housing is a handmaiden of Hygeia. It may serve her ill or well. It is only one of the many relationships between our environment and our well-being. Housing helps to attain, but more especially to maintain, a good quality of health.

The literature on the subject of housing and its relation to health is widely dispersed and often difficult to interpret. There are many unknown factors involved, and we are still ignorant of important fundamental influences in this relationship. This committee has had neither the time nor the opportunity to undertake original research in the problem and has therefore done nothing more than attempt to summarize and interpret our present knowledge of the effect of housing upon health.

Almost every phase of the subject mentioned in this report deserves further study, and we recommend particularly that investigations be made upon the relation of housing to infant mortality, to immunity, to tuberculosis and to typhus fever; to overcrowding, lighting and ventilation, accidents, cleanliness, and facilities for recreation and play.

## CHAPTER II

### HOUSING AND DELINQUENCY<sup>1</sup>

The effect of housing conditions upon the problem of delinquency and crime is a subject concerning which there is little conclusive statistical material. For the most part, the available data are of a rather general character and do not provide a basis for drawing conclusions regarding the causal significance of housing conditions in delinquent behavior. Consequently, this report is necessarily very tentative in character.

The subject matter of the report falls into four parts: (1) Crime causation; (2) housing and delinquency as a statistical problem; (3) some formal characteristics of delinquency areas; and, (4) conclusions and recommendations.

#### Crime Causation

**Complexity of Causation.** The layman and legislator, and not a few students of social problems, have a tendency toward oversimplification of the problem of crime causation. If, for example, they are particularly interested in the improvement of housing conditions, they will point to the fact that in some localities crowded tenements and "slum areas" and a high incidence of juvenile delinquency are found together. From this they jump to the conclusion that the one is the "cause" of the other. They ignore the fact that they have isolated but one factor out of a mass of entangled influences and assigned primary importance to that factor. If their interest lies primarily in providing playgrounds, they can readily find that some communities with inadequate recreational facilities have a higher incidence of delinquency than regions in which there are many playgrounds. And again they pass to the wished-for conclusion. If they approach the crime problem with a eugenical bias, they may point to the findings of a high incidence of mental deficiency in some prison as compared with the general population of the locality, and arrive at the conclusion that mental deficiency is a primary "cause" of crime. It is easy for one to become a special pleader when dealing with such a com-

---

<sup>1</sup>Prepared for the Committee on Housing and the Community by the Group on Housing and Delinquency, Clifford R. Shaw, Chairman, Charles Elmer Gehlke, Sheldon Glueck, A. Warren Stearns, M. D., and Edwin H. Sutherland.

plex problem as crime causation; because so many individual and social factors are involved and their interplay is so intricate and confused, one need only seize upon whatever end of the tangled skein interests him most and assign to it a primary causative value. If, however, he wisely pulls on the thread, he will soon drag other "causes" into view, and may even find that he got hold of the end or a broken middle of the cord instead of the beginning.

A few illustrations will indicate some of the intricacies of this problem of crime causation. It has been abundantly demonstrated<sup>2</sup> that an appreciable fraction of the youth of certain city areas become delinquent or criminal. These areas are characterized not only by a greater incidence of criminality than is found in other regions, but by such unhealthy social conditions as unattractive, crowded housing, poverty, vice, antisocial cultural traditions, etc., etc. Is it reasonable to assume that any or all of these conditions comprise the "cause" of the relatively high incidence of criminality? On the one hand it is found that in such areas, say 10 per cent of the youths are brought to the juvenile court on delinquency petitions, while in other areas, where such conditions do not prevail, or exist to a less extent, only 2 per cent of the children are brought to court. On the other hand, however, it is also evident that, in the delinquency area, 90 per cent of the children are not brought to court. Hence, the most that can be deduced from the findings is that the complex of unhealthy elements in the delinquency area operated to bring 10 per cent of the boys to court. But can even this thesis be sustained without qualification? Standing alone it does not explain why 90 per cent of the youths were not brought to court as delinquents, though subjected to the same general conditions.

Consider another illustration. Suppose it were found that 10 per cent of the psychotic, psychopathic, psychoneurotic and mentally defective population of any city commit crimes, while only 2 per cent of the mentally healthy population of the same place are criminalistic. Could it thereby be concluded that mental abnormality is a "cause" of crime? On the one hand it is true that the mentally aberrant contribute a higher percentage of their num-

---

<sup>2</sup> Shaw, C. R., and McKay, H. D., "Social Factors in Juvenile Delinquency," *Report on the Causes of Crime*, (Report No. 13, Vol. II), National Commission on Law Observation and Enforcement, Washington, U. S. Government Printing Office, 1931, and studies therein referred to.



ber to the criminal ranks than the mentally sound; on the other hand, however, it is also true that 90 per cent of the mentally ill do not commit crimes.

If it were consistently discovered, in a wide variety of samples, that the proportion of criminals among those who live in deteriorated areas compared to the percentage of those who live elsewhere is, say, as 10:2, and the proportion of criminals among the mentally aberrant compared to the mentally sound as 3:2, one might with some assurance say that the environmental and cultural characteristics of deteriorated areas have a greater causative force in criminality than constitutional or conditioned mental illness. But such differences in proportion have never been demonstrated. And even if the finding were made, there would remain the problem of evaluating the relative influence to be assigned to the various *elements* that together comprise the delinquency area. How, for example, would one be able to say that bad housing conditions were more conducive to antisociality than lack of playgrounds?

This discussion emphasizes two basic concepts in all sociological inquiry: The extreme complexity of causation and the great difficulty of assigning relative *weights* to different elements in the causation complex.

**The "Vicious Circle" Concept.** Another difficulty involved in any causation study in this field is that of assigning the position of the "cart" or the "horse" to any single factor associated with another. X is in prison for burglary. On examination it is found that he is also a "constitutionally inferior psychopathic personality" and an habitual alcoholic. Further inquiry discloses that X and his family have long been in dire poverty and residing in the vilest tenement house in a "delinquency area." Has X's criminality been "caused" by his drunkenness, or have both the alcoholism and the misconduct been "caused" by his constitutional inadequacy, or did X's habitual imbibition of alcohol aggravate his original weak inhibitory capacity? Did X become a drunkard because he couldn't stand his family's miserable economic situation, or was the drunkenness the cause of that unhealthy economic status? All these sequences may have occurred at different times in the life of X, in a series of vicious "action-reaction" mechanisms. But even by close scrutiny of X's developmental history it would

be difficult to assign *primacy* to any of the factors involved.<sup>3</sup> The great difficulty lies in determining what is "primary." Some would naturally be inclined to place the constitutional inadequacy first; but it is conceivable that that defect alone would not have caused X to become a criminal, or that without his having lived in a deteriorated neighborhood containing many "speakeasies" X never would have become a chronic alcoholic, or that even if his inebriety preceded his criminality he never would have lapsed into crime had his economic situation been adequate, etc., etc.

The foregoing discussion shows that, in addition to the difficulty of assigning relative *weights* to different factors in a causative complex, there is the difficulty of assigning *primacy* to any of the arcs in the series of vicious circles so often found in the lives of criminals.

As is shown below, statistical science enables us to some extent to gauge the relative weight to be assigned to individual causes, when analyzing an adequate sample of cases and to assign primacy among them. But even such refined technique does not completely eliminate the difficulties described in these pages, if for no other reason than that each individual case in a series must first be subjected to some such analysis as described, before *mass phenomena* can be determined through mathematical statistics. This brings us to still another difficulty in causation analysis where human conduct is involved, namely, the differentiation of cause and motive.

**Cause and Motive.** Too often it is concluded by social workers that because a person who is criminal was found to reside in a bad home and deteriorated city area, the former fact is *necessarily* "caused" by the latter. X and Y are reared in a "delinquency area." X becomes a fine citizen, recognized leader, sober and law-abiding; Y turns out to be a burglar or gunman. Both were subjected to bad housing, poverty, and other undesirable situations in childhood. But, to the one, the bad environmental influences were a stimulus to legitimate, socially acceptable behavior; to the other, to illegitimate, socially repulsive conduct. In both cases, poverty or bad housing was not only a *situation* in the environment but

---

<sup>3</sup> "Vicious Circle is the process by which a primary disorder provokes a reaction which aggravates such disorder." Hurry, J. B., *Poverty and Its Vicious Circles*, London, (J. and A. Churchill), 1917, p. xi. Adapted by Ford, J., *Social Problems and Social Policy*, Boston, Ginn and Company, 1923, pp. 581 *et seq.*

a *motive* in the life of the individuals involved. Since the situational forces were similar, the difference in outcome in the two cases can only be attributed to the dissimilarity in the *persons* involved or to accidental factors of an unknown nature.

Consider another case. A, a God-fearing, law-abiding bank clerk, who has never before even thought of stealing, needs money badly because of the illness of his wife or children, or the dread of impending unemployment. He embezzles funds. Is the *situation* necessarily the "cause" of his criminality? The situation is, to be sure, the immediately determining factor; yet if A had been B he would not have stolen, even in the situation described. He would have sought some other solution of his acute and extraordinary situation, such as borrowing funds, or appealing to relatives, or letting his family go without their needs. In other words, the pressing situation would not have become a motive to misconduct. Here we see that, even in cases where the situation is the immediately precipitating stimulus, the make-up of the person (constitutional and conditioned) is still the factor that makes the real difference.

These illustrations suggest two useful concepts in crime-causation study: (1) A "factor," whether personal or situational, does not become a "cause" unless and until it becomes a "motive,"<sup>4</sup> and whether it will become a motive for one form of behavior or another depends upon the constitutional and acquired make-up of the individual. (2) Every person has his individual resistance-limit. It is difficult for *all* members of any society to lead a socially acceptable existence which involves a submergence of the ego desires to the supposed common weal. But most persons are capable of sufficient resistance and inhibition (natively and through education) to meet the ordinary requirements of the legal standard of the age and place in which they live. If society raises the demands somewhat, or, through social stress, such as continued unemployment, etc., makes it more difficult to adhere to them, more persons will violate the law than before, because it thereby taps the level of those whose resistance-capacity is at present stretched almost to the breaking point. If it raises the social taboos still higher or extends them or renders it more difficult to observe them, it further increases the number of violators of the socio-legal standard

---

<sup>4</sup> For this concept we are indebted to Dr. Bernard Glueck.

by tapping the tier of persons whose resistance-capacity is somewhat stronger than the prior group, etc.<sup>5</sup>

The criminal act occurring at any one time is the outcome of constitutional and acquired, personal and situational forces, when the power of resistance has been overbalanced by the strength of the other circumstances. Hence, some men would be criminal (i.e., would violate the social conventions) in almost any society however rudimentary or complex, and in almost any "situation" in life, however ordinary or unique; others would be criminalistic in a complex society but not so in a simpler one; others would be criminal in extraordinary emergency though not in ordinary situations; still others would be criminal only in an extremely complex society and in an unusually provocative situation. Criminality is thus shown to be relative to the time, place, and occasion on the one hand and the constitutional and conditioned make-up of the individual on the other.

**The "Natural History" Point of View.** In the foregoing analysis the discussion has perhaps suggested a more or less *mechanical* interplay of forces at definite levels. In addition to the difficulty of analyzing a cross section of any person's life at the time of his commission of an offense, there is the further difficulty presented by the fact that each person is a living, constantly changing organism, a truth that requires analysis of the natural history of the individual. Only by such "vertical" investigation can one hope to discover whether the particular response of the individual to the stimuli that apparently were operative at the time of the criminal act under scrutiny is quite typical or atypical. The need of studying the developmental history of the individual renders even more difficult the task of assigning relative weight and primacy to the various elements in any causative complex involving human conduct and misconduct. Moreover, if one were to give as great weight to unconscious motivation and forgotten experience of early childhood as is assigned by psychoanalysis, the problem would become still further complicated.

---

<sup>5</sup> A similar theory may be advanced from a psychological point of view in connection with "regressions" to infantile levels. The psychoneurotic soldier who, under the stress of battle, suddenly exhibits childish emotional and physical symptoms, has reached his particular regression-point. Other soldiers require a more severe fear-arousing stimulus before they will begin to react by regression as a means of "escape from reality."

**Can We Speak of Specific "Causes"?** In view of the foregoing discussion, can we speak of any *specific* causative factor in crime, such as bad housing? Only if we recognize that (1) it is causative in but a fraction of cases and (2) only then, as part of a *complex of interacting forces*. This view, while not as simple or naive as the popular misconception of powerful and direct cause and effect relationship between bad housing, or poverty, or mental defect, or any other "cause" and criminality, is much nearer the facts. Is it, however, a sufficient basis upon which to plan programs of social amelioration, such as better housing? Yes, because in attacking at least one of a complex of factors found to be related to delinquency and criminality, vice, poverty, etc., we may make some progress in the reduction of those evils, although much greater progress might be made if the crime problem were attacked simultaneously along the many other fronts suggested by the other factors involved in the cause-effect melange. In other words, an attack upon bad housing may be one way of breaking certain of the "vicious circles" of modern urban life, of which delinquency and criminality are arcs.<sup>6</sup>

### Housing and Delinquency as a Statistical Problem

The statistical generalizations we now possess about the relation of housing and delinquency are few, and not very explicit. Studies in Chicago and other cities reveal that juvenile delinquency is most frequent (in proportion to the juvenile population) in "areas of deterioration," generally adjacent to the business sections of our large cities. These are regions in which the foreshadowed exit of residents and entrance of business and manufacturing discourages the maintenance of good standards of housing in the generally old structures found there. Such areas often show decrease of population, while the city as a whole may be growing rapidly. There, also, live the poorest classes, as revealed by the percentages of population receiving aid from charities. Disease and death rates are largely concentrated in these neighborhoods. Are we justified, then, in saying that bad housing itself is the principal factor, or even one factor, in producing delinquent behavior?

---

<sup>6</sup> "Every Vicious Circle has one excellent virtue, viz., there are at least two points in its circumference at which interruption is possible. When the *locus minoris resistentiae* has been discovered, a breach must be effected and the gyration arrested." Ford, J., *op. cit.*, p. 585.

As has already been pointed out, delinquency and crime have a very complicated causation. If we consider housing in this connection, we immediately see that the apparent causal relations between housing and delinquency are far from simple. Delinquents come mostly from the poorer classes. In the larger cities of the United States they are to a large degree the children of immigrant groups, i.e., Europeans, or Negroes from the southern states. But the poor and immigrants (two overlapping classes) live largely in these areas of deterioration. They may, to a certain degree, make bad housing worse by poor standards of housekeeping, again related to poverty and to ignorance of so-called "American" standards.

Most studies of the social effects of housing in general have relied on single indices, such as the density of population, or the number of persons per room. Even the latter is a very crude measure of housing, though possibly the most practical one so far developed for large-scale measurement. When we find high density, or a high degree of room overcrowding, associated with a high delinquency rate, comparing area with area, it suggests that there may be some causal relation. It does not prove it. This causal relation might be complex. For instance:

Room overcrowding may cause delinquency directly;

Poverty may be the chief cause of room overcrowding;

Poverty alone (i.e., without room overcrowding) may be a cause of delinquency;

Room overcrowding injures health and vitality, increasing poverty;

Delinquency (in persons of working age) reduces industrial efficiency—which would have an effect in increasing poverty;

Areas of bad housing generally have a dearth of good recreation facilities, which may be a causative factor in delinquency;

Incorporated in these areas we often find the segregated districts of prostitution and gambling, factors not conducive to wholesome community and neighborhood life.

Note that no account has here been taken either of the race and nationality factors or of the personal factors. It is tacitly assumed that the groups considered are homogeneous with the remainder of the population, and that we are dealing with two single factors, housing and delinquency. Obviously the addition of these two new factors would complicate our problem not by addition, but by multiplication.

When, therefore, we estimate the degree to which bad housing (indicated by a single index for a whole tract) tends to occur with delinquency (indicated by a single index for a whole tract) we simplify the problem by ignoring its complexities.

There are two methods, basically related, by means of which we may disentangle these Gordian knots. That is, if we can get an accurate and sensitive index for each factor. One method is to subdivide our populations and areas to be studied till we have units which are practically homogeneous in every respect except housing. This is easy to say and hard to do. Then the relation of housing to delinquency would be studied in its relative isolation, somewhat as the physicist studies the relation of volume and pressure of a gas, while the temperature is held constant. The other method is that of partial correlation, in which the net relationship of two factors may be measured, while the others are held constant. Unfortunately, the data we have do not always satisfy the requirements laid down by the mathematician as antecedent to the application of such a method.

To a large degree we do not have even the raw materials of such studies, in the form of indices of these various factors.

Other methods suggest themselves. Instead of taking a tract or area, let us take the house as a unit. Ascertain about each delinquent such facts about the housing of his family as are pertinent to establish its quality. Then secure the same information about the housing of an equal number of known nondelinquents from the same general area or areas in the city, having concern of course that the nondelinquents come from approximately the same kind of economic background. What differences are noted in the housing? Could these differences be due to the mere chance of random selection? Or are they significant? The only answer the statistician can give to this question is to indicate what the probability is that the difference indicates something fundamental and not a mere chance due to the haphazard selection of a sample. This is what differentiates the work of the statistician from that of the physicist, for example. The latter may assume that his sample experiment or experiments are representative because of the invariableness of natural law. The statistician has no such security, and the best he can offer is reasonably heavy odds on his answer

being as representative as all the other answers that would be given if other samples were selected.

Does this mean that statistical methods are not useful? By no means. Statistics provide us with a kind of screen that sorts out the grossly important factors. These then can be subjected to more refined analysis by statistics. Or the method of the intensive study of individual cases can be used. For instance, an analysis of the manner in which housing has affected individuals. Since all influences toward or away from crime bear upon individual minds and produce individual behavior, good or bad, it is in the ultimate analysis of individual behavior that we shall find the explanations we seek.

### **Some Formal Characteristics of Delinquency Areas**

Since the period of time allotted to the preparation of this report was not sufficiently long to permit the committee to make any original studies, it has been necessary to depend entirely upon materials already available. Unfortunately, a review of the literature on the subject failed to reveal any very conclusive findings indicating a direct relationship between the physical conditions in the home and juvenile delinquency or adult crime. Various studies were found, however, which indicate that in many American cities, a disproportionately large number of delinquents are found in those areas in which the physical conditions of the home are most deteriorated. Obviously the mere fact that these two phenomena are found together in the same area does not imply a causal relationship between them; both may be functions of other more basic processes in the social and economic life of the city. In other words, deteriorated home conditions may be characteristic of the areas of delinquency, although not a causal factor in such behavior.

In the absence of any findings which might show a direct relationship between the physical conditions of the home and juvenile delinquency, it was necessary to direct our attention to a general comparison of the geographic distribution of delinquents and certain of the more formal characteristics of neighborhood situations, among which are included housing conditions and home ownership. It is felt that a consideration of housing conditions and home ownership along with other formal characteristics of neighborhood situations, will afford a more satisfactory basis for considering the possible relationship between the physical conditions of home and juvenile delinquency.



**Distribution of Delinquency.** Studies of delinquency in Chicago and in many other American cities, have indicated that certain areas produce a disproportionately large number of delinquents. While some areas show a very marked concentration of cases, others show relatively few. Likewise the ratio between the number of juvenile delinquents and the total number of boys in the same age group, shows wide variation among the various areas of the city.

For the most part, the areas showing the greatest concentration of cases and the areas having the highest rates of delinquents, are located in the districts adjacent to the central business district and major industrial centers. The outlying residential neighborhoods show relatively few cases and the lowest rates. Also the rates of delinquents show a rather definite tendency to decrease inversely in relation to distance from the central business district and the industrial centers.

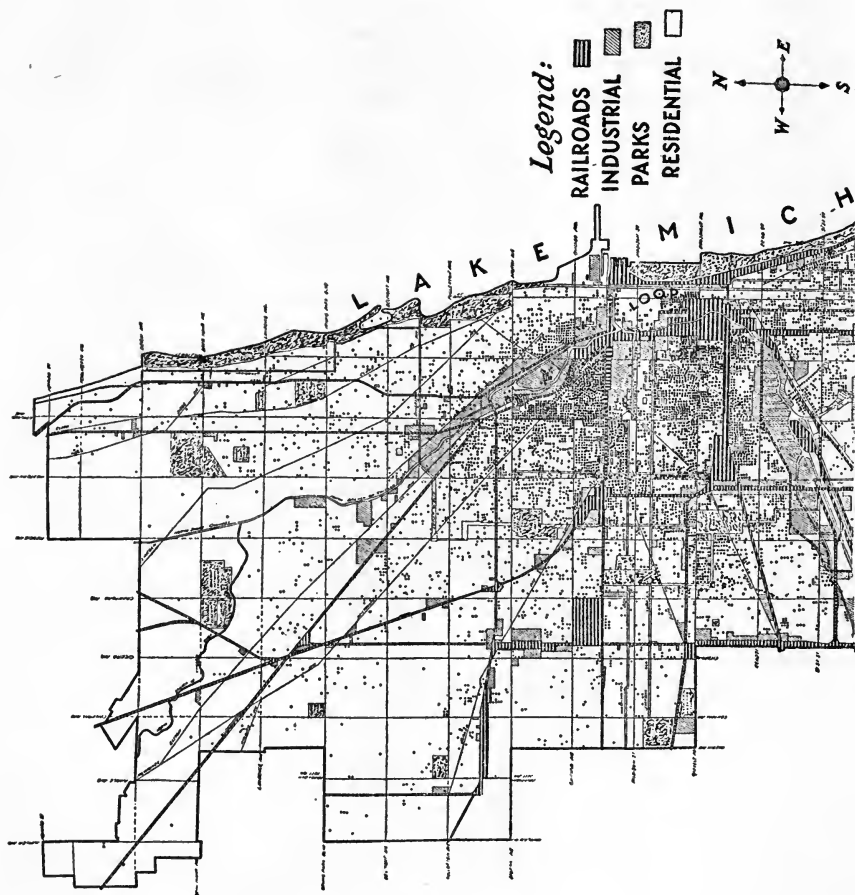
The typical geographical configuration of cases of juvenile delinquents in Chicago is indicated in Map I.<sup>7</sup> This map shows the home addresses of the 8,141 alleged delinquent boys brought before the Juvenile Court of Cook County in the 7-year period from January 1, 1917, to December 31, 1923.

It will be observed that the most marked concentration of cases on this map occurs in the areas along the north and south branches of the Chicago River, in the west side, around the stockyards, in the South Chicago steel mill district and the Pullman industrial district west of Lake Calumet. It will be observed that a large proportion of the delinquents in this series and the areas of heavy concentration are, with the exceptions just noted, located adjacent to the central business district, which is designated on the map as the Loop. Proceeding outward in any direction from the central point, the cases tend to be more scattered until the periphery of the city is reached, where in general the delinquents are widely dispersed.

The geographical configuration of the 8,141 cases presented on this map (Map I) is almost an exact duplication of five other series of cases of delinquent boys studied in Chicago. These additional series include one other series of juvenile court cases, two series

---

<sup>7</sup>From Shaw, C. R., *et al.*, *Delinquency Areas*, Chicago, University of Chicago Press, 1929.



PREPARED BY  
RESEARCH SOCIOLOGISTS  
Behavior Research  
Fund  
Chicago

# BASE MAP of CHICAGO

MAP NO. 1

HOME ADDRESSES OF 8,141 ALIENED MALE JUVENILE DELINQUENTS BROUGHT BEFORE THE JUVENILE COURT OF COOK COUNTY DURING THE YEARS 1917-1923

of boys handled by the police as alleged delinquents, and two series of boys committed to correctional institutions by the Juvenile Court of Cook County.<sup>8</sup> The same type of configuration was found in studies of the geographical distribution of juvenile delinquents in Philadelphia, Pennsylvania; Richmond, Virginia; Birmingham, Alabama; Cleveland, Ohio; Denver, Colorado; and Seattle, Washington.<sup>9</sup>

**Rates of Delinquents.** The rates of delinquents by square-mile unit areas as calculated on the basis of the 8,141 court delinquents, are indicated in Map II.<sup>10</sup> The rate in a given area represents the relationship between the number of boys brought to court during the 7-year period and the aged 10 to 16 male population for 1920, the mid-point of the period of years covered by the series. It should not be assumed that these rates are a measure of the amount of delinquency or the number of boys engaged in delinquent activities in a given area. It is a well-known fact that not all boys actually delinquent are apprehended or even known to the police or courts. The rates are used here simply as an index of the *relative* amount of delinquency among the various areas of the city.

It will be observed that the range of rates in the 113 areas is from 0.8 to 19.4. The median rate for the series is 4.3 and the average rate is 5.4. Three areas have rates of less than 1, and four areas have rates of 15 or over. Similarly, 8 areas have rates of 12 or over, while at the other extreme, 19 areas have rates of less than 2. Also, when this map is examined more closely, it is revealed that this wide range of variation in the magnitude of rates follows quite closely the configuration presented by the foregoing distribution map. Generally speaking, the areas having high rates are adjacent to the central business district, the north and south branches of the Chicago River, the stockyards, and the South Chicago industrial district, while the areas with the lowest rates are in the outlying residential neighborhoods.

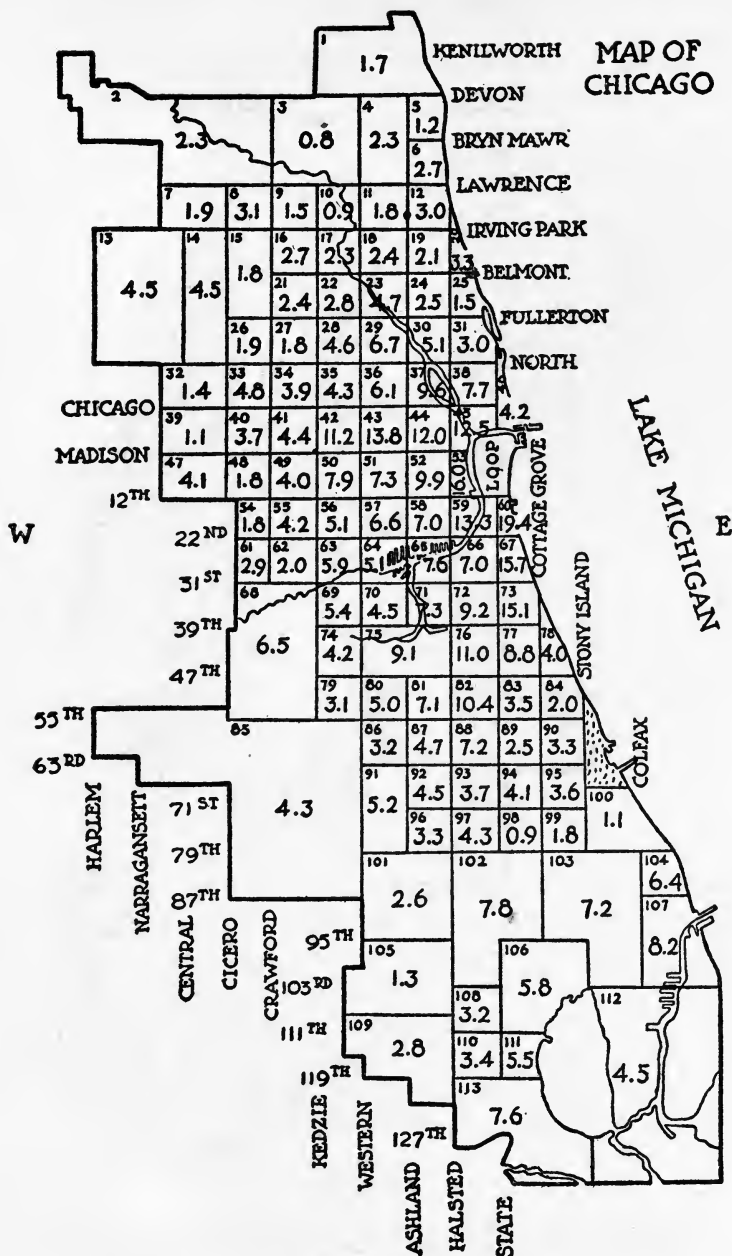
While this is the general tendency, it is important to note that in some instances very great differences can be observed in the rates

---

<sup>8</sup> See *ibid.*

<sup>9</sup> See Shaw, C. R., and McKay, H. D., *op. cit.*

<sup>10</sup> From Shaw, C. R., *et al.*, *op. cit.*



**MAP II**  
**RATES OF JUVENILE DELINQUENTS IN CHICAGO BASED UPON THE**  
**8,141 ALLEGED MALE JUVENILE DELINQUENTS INCLUDED IN THE**  
**1917-1923 JUVENILE COURT SERIES**



in contiguous areas. For example, one of the areas just north of the Loop, has a rate of 12.5, while the one adjoining has a rate of 4.9. Likewise on the South Shore, in the district south of Jackson Park, one area has a rate of 1.1, while the adjoining areas to the south have rates of 6.4 and 7.2.

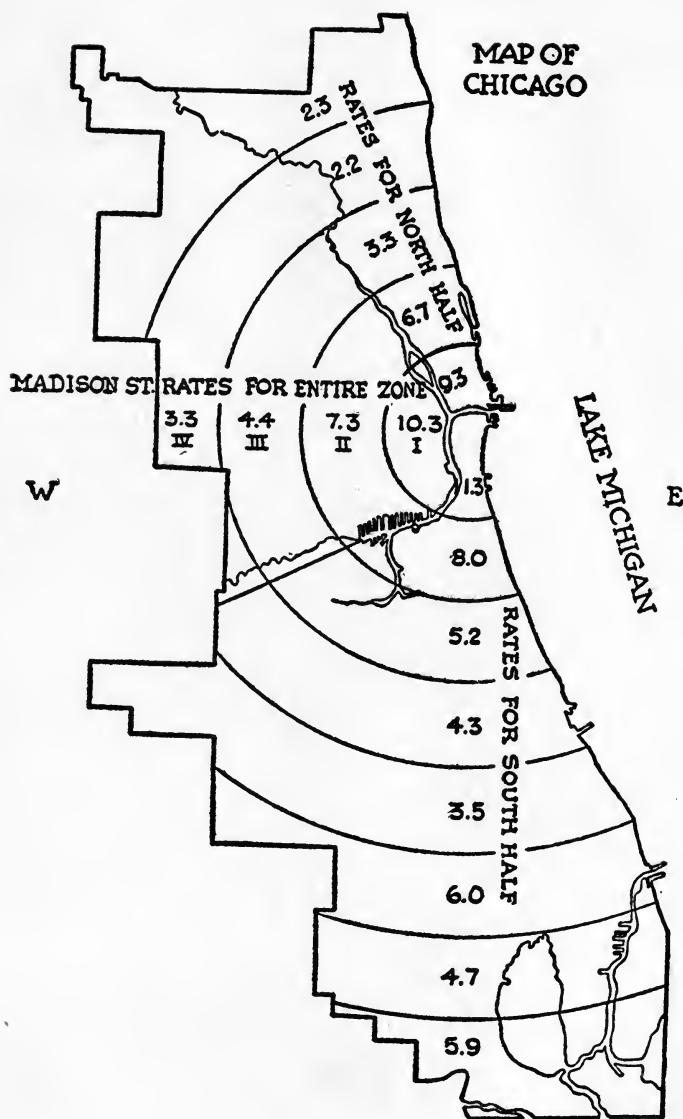
*Radial Rates.* The manner in which the rates shown on Map II tend to decrease in each successive area from the Loop out to the city limits, is revealed on Map III.<sup>11</sup> It will be observed that the rate nearest the center of the city on Radials I, II and III is 12.5, while the terminal rates are 1.7, 2.3, and 4.5, respectively. Radials IV, V and VI start with a rate of delinquents of 16.0 and terminate with rates of 4.1, 2.9, and 4.3. Radials VII and VIII begin with a rate of 19.4 and terminate with rates of 7.6 and 4.5. In these last two radials, it will be noted that the rates decrease gradually to about the sixth mile, then rise again at the South Chicago and Lake Calumet districts. An especially smooth and gradual decrease is noted in Radial II, where the rates from the center of the city outward range as follows: 12.5, 9.6, 6.7, 2.8, 2.7, 3.1 and 2.3.

*Zone Rates.* The tendencies of the rates of delinquents to decrease in each successive area from the center of the city outward, which is so obvious when either the rate or radial map is examined, is indicated in a more idealistic manner in Map IV. These zones were constructed by taking a focal point at the intersection of State and Madison Streets in the Loop, and drawing concentric figures at intervals of 2 miles. The rates in these zones were calculated upon the basis of the total age 10 to 16 population and the number of delinquents.

It should be borne in mind that zone rates of delinquents are presented chiefly because of their theoretical value; they represent the radial variations more conceptually and idealistically. The rates in the areas included in a given zone vary widely, as indicated in the discussion, with reference to the wide differences in rates in contiguous areas. The rates for the areas in Zone I, for example, range from 4.2 to 12.5, while the rate for the zone as a whole is 10.3. It is because these zone rates eliminate the fluctuations in rates for small areas and present general tendencies, that they are

---

<sup>11</sup> *Ibid.*



**MAP IV**

**RATES OF JUVENILE DELINQUENTS BY ZONES IN CHICAGO FOR THE 1917-1923 JUVENILE COURT SERIES**



of theoretical importance in the study of the variation and distributions of delinquents.

Map IV presents rates of delinquents for the first four zones taken as wholes, and separate rates for each zone in the north and south halves of the city when Madison Street is taken as a division line. The rates for the entire zones are presented horizontally on the map. It will be noted that the latter zone rates decrease progressively from the center of the city outward. From 10.3 in the first zone, the rates decrease to 7.3 in the second, to 4.4 in the third, and to 3.3 in the fourth zone.

The differences between the zone rates in the north and south halves of Chicago indicate quite clearly the actual differences between these two sections of the city. On the north side, it will be noted, the rates decrease from 9.3 in the first to 2.3 in the fifth zone, with a low point in the range at 2.2 in the fourth zone. This regular decrease in zone rates reflects the fact that the north side is undisturbed by any major outlying industrial developments such as those found on the south side in the stockyards and the steel-mill districts. This difference is indicated very clearly in the zone rates for the south half of the city where the stockyard areas are included in the third zone, part of the southwest manufacturing district in the fourth, and part of the South Chicago industrial districts in each of the last four zones.

The zone rates for the south side start, it will be noted, with a rate of 11.3 and decrease much more slowly than the rates in corresponding zones on the north side. The low rate is in Zone IV, which includes some of the better Lake Shore residential areas. Beyond this point, the rates rise again so that in Zones VI, VII, and VIII they increase to about one-half the magnitude of the rates in the first zone.

It is obvious from these rates that the extreme southern part of Chicago represents a variation from the ideal construction found on the north side and in the first four zones on the south side. It is known that the extreme southeastern portion of the city is an industrial and commercial center, which possesses many characteristics similar to those in or adjacent to the central business district.

It is clear from the foregoing maps, that the number of delinquents and the rates of delinquents vary widely among the va-

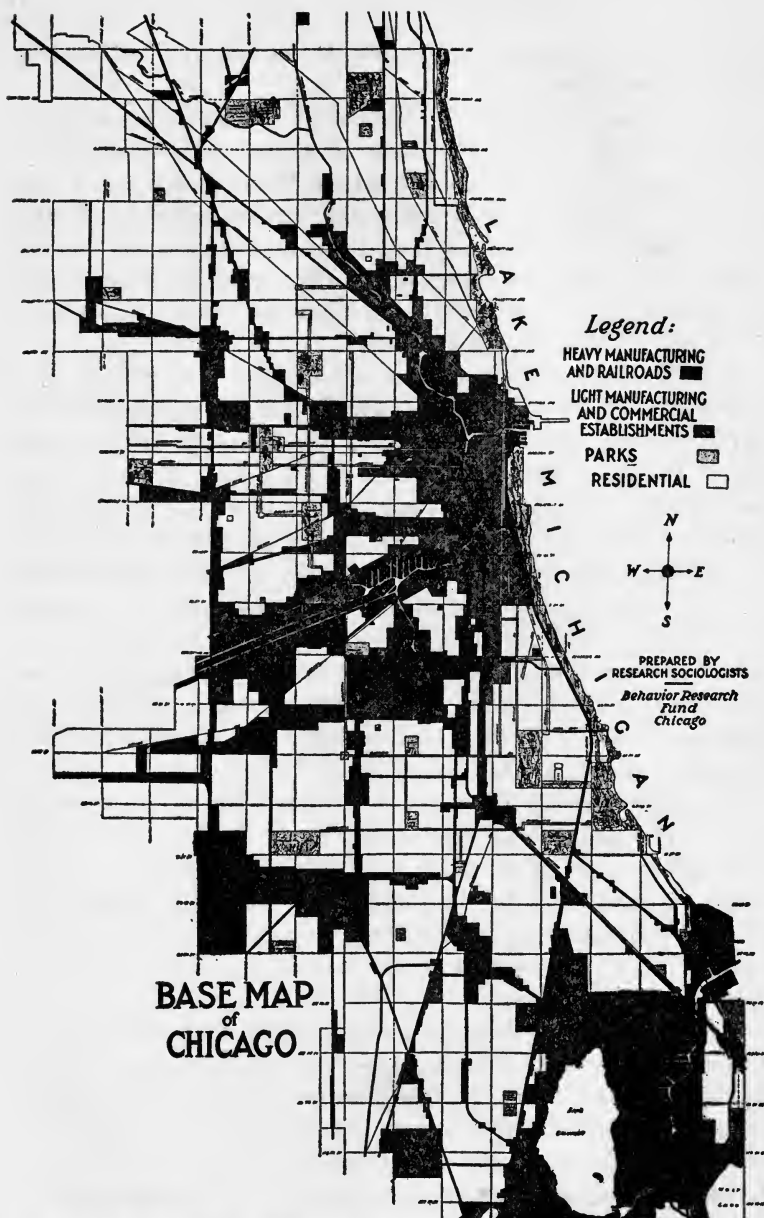


FIG. 1.—Showing areas occupied by or zoned for heavy manufacturing and railroads, light manufacturing and commercial establishments and residences.

rious areas of the City of Chicago. As previously stated, the configuration of cases and the variation in rates for the series of cases presented in the foregoing maps, are typical for all of the series of cases studied in Chicago, including both males and females, and for series of cases for other American cities. This fact suggests many interesting questions for future research in the field of juvenile delinquency. For the purpose of this report, it will be sufficient to present materials suggesting some of the more formal characteristics of the delinquency areas in Chicago. These materials are presented for the sole purpose of differentiating in a rough way the areas having the greatest concentration of cases and the highest rates, from the areas in which the cases are few and the rates are low. The reader is cautioned against attaching causal significance to any of the indices to be considered.

**Industrial and Commercial Centers.** One index which may be used to differentiate the areas of the city, is the configuration of major industrial and commercial centers. Figure 1<sup>12</sup> gives an outline of the areas zoned for industry and commerce by the Chicago zoning ordinance of 1923. The central commercial and light industrial district is indicated by the crosshatched sections of this figure. It is clear that the Loop is almost entirely occupied by commercial establishments. In the zoned areas adjacent to the Loop, but not occupied by heavy industry, are light industrial plants, warehouses, and similar buildings. A portion of this area is still used for residential purposes, but it is subject to occupancy by industry and commerce as the central business district expands.

In contrast with the commercial and light industrial developments in and adjacent to the center of the city, heavy industry tends to be located where there are natural advantages such as rivers, railroads or lake fronts. Thus, the heavy industrial districts in Chicago which are indicated in solid black on Figure 1 are quite widely dispersed throughout the city; the largest developments are along the banks of the Chicago River and extend outward from the point where the first industries were established. The northern extension follows the north branch about three miles from the central district, while the southern extension follows the south branch of the river to the city limits and includes a

---

<sup>12</sup> *Ibid.*

large portion of the Union Stockyards and the central manufacturing district. The other major industrial areas outlined on this figure are in the South Chicago and Calumet districts, where, as previously indicated, more or less independent industrial communities developed early in the history of Chicago.

When the maps showing the distribution of delinquents in Chicago are compared with this industrial map, it will be noted that most of the concentrations of delinquents and most of the high-rate areas of delinquents are either included in, or are adjacent to the districts zoned for industry and commerce. The high-rate areas along the two branches of the Chicago river on the west side, on the south side, in the stockyard district, and in South Chicago are either completely or in part included in the shaded areas. On the other hand, the areas with low rates of delinquents are, generally speaking, quite far removed from the major industrial developments.

From the foregoing it may be said that, in general, proximity to industry and commerce is an index of the areas of Chicago in which high rates of delinquents are found. However, it is not assumed that this proximity exists because industry and commerce are in themselves causes of delinquency. It may be assumed, however, that the areas adjacent to industry and commerce have certain characteristics which result from this proximity and which serve to differentiate them from the areas with low rates of delinquents. Materials will be presented, therefore, which suggest how these areas are affected by industry and commerce and to present some of their more formal characteristics.

**Physical Deterioration.** As the city grows, the areas of light industry and commerce near the center of the city expand and encroach upon the areas used for residential purposes. The dwellings in such areas, already undesirable because of age, are allowed to deteriorate under the threat of invasion, because further investment in them is unprofitable. Others are junked to make way for new industrial or commercial structures. The effect of these changes is that the areas become increasingly undesirable through general depreciation.

Evidence of the physical deterioration around the central business and industrial district in Chicago, is seen in Figure 2, which shows the location of the dilapidated and dangerous buildings,

# MAP OF CHICAGO

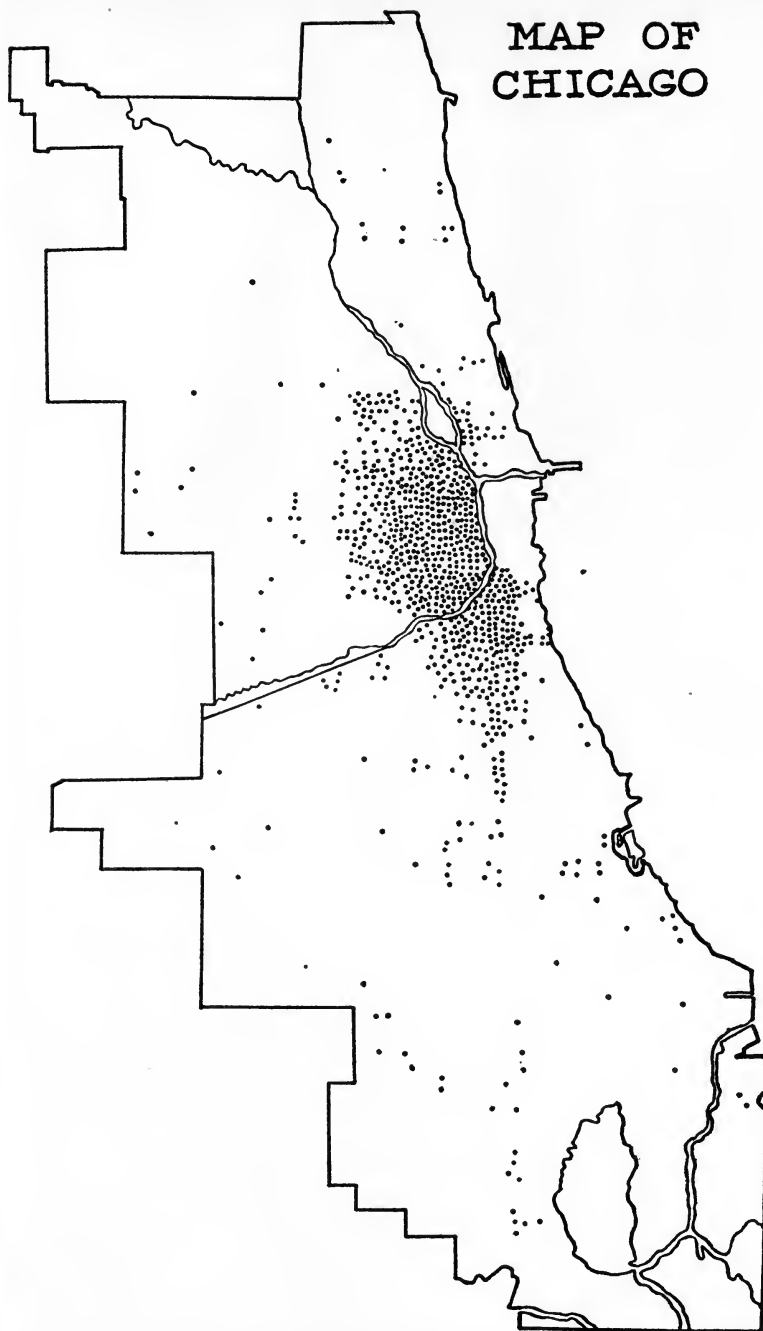


FIG. 2—Location of condemned buildings in 1929

which were ordered by the building department of the city either to be destroyed or to be repaired (March, 1929). It is not assumed that the configuration of the spots on this figure delimits all of the areas where bad housing conditions exist, although the housing conditions are probably more undesirable here than in any other area of the city. The figure does show the areas where the pressure of the expanding business and industrial area is greatest and where the change in the use of land is most rapid.

Likewise, the areas adjacent to heavy industrial centers, but not yet occupied by industry, are subject to invasion. While the threat of invasion is not so great as in the areas close to the center of the city, first-class residences are not constructed in these areas and there is a definite tendency toward physical deterioration. Furthermore, the areas that are near heavy industrial developments are often rendered more undesirable for residential purposes because of noise, smoke, odors, or the general unattractiveness of the surroundings. The total result is, therefore, that both the areas adjacent to commercial and light industrial properties near the center of the city and those adjacent to centers of heavy industrial development in the outlying sections are in general almost equally unattractive and undesirable for residential uses.

While the foregoing figure indicates that the most deteriorated dwellings are found in the areas having the greatest concentration of delinquents, it is not assumed that there is a causal relationship between bad housing and delinquency. It may be assumed that the general physical deterioration observed in the areas adjacent to the central business district and the major industrial centers, is a result of the natural process of city growth. The most that can be said upon the basis of these materials is that the physical deterioration of the home is only one of the elements characteristic of the general neighborhood situations in which delinquent cases are most prevalent.

**Areas of Increasing and Decreasing Population.** Further evidence of the process of deterioration and rapid change in the areas adjacent to commerce and industry is seen in Figure 3, which shows the percentage increase and decrease of the population in each of the 113 areas during the period from 1910 to 1920. According to this figure, 12 areas, all of them near the center of the city, decreased more than 20 per cent in this 10-year period;

and a total of 23 areas, either near the central business district or the heavy industrial sections, showed some decrease. For example, it will be observed that some areas in the stockyards district and in the South Chicago and the Pullman industrial sections were among those showing a decrease in population.

When either the distribution map (I) or the rate map (II) is compared with Figure 3, it will be observed that most of the heavy concentrations of delinquents and most of the high-rate areas are included in those sections of the city which show a decreasing population. Likewise, the areas that are slowly increasing in population tend to be the areas with medium rates of delinquents, while the areas of more rapid increases tend to be the low-rate areas. This general correspondence is indicated in the following table, which shows the actual rate of delinquents in areas of increasing and decreasing population as classified in Figure 3.

**Table I.<sup>18</sup> Relationship between Rates of Delinquents and Percentage Increase and Decrease of Population in the Groups of Areas Outlined in Figure 3.**

Population change	Rates of delinquents, 1917-1923 juvenile court series
Areas decreasing:	
20 per cent and over.....	9.7
0 to 20 per cent.....	8.6
Areas increasing:	
0 to 20 per cent.....	5.3
20 to 40 per cent.....	4.0
40 per cent and over.....	3.6

According to Table I the rates of delinquents show a smooth and regular decrease from the areas with the greatest decrease to those with the greatest increase of population. Thus from the group of areas in which the population decreased more than 20 per cent, to the group of areas where the population increased more than 40 per cent, the range of rates in the series of delinquents is from 9.7 to 3.6.

Here again the reader is cautioned against attaching causal significance to the correspondence between rates of delinquents and percentage increase and decrease of population as presented in Table I, or to any of the variables considered in relation to rates

<sup>18</sup> From *Report on the Causes of Crime*, (Report No. 13, 2 vols.), National Commission on Law Observance and Enforcement, Washington, U. S. Government Printing Office, 1931.

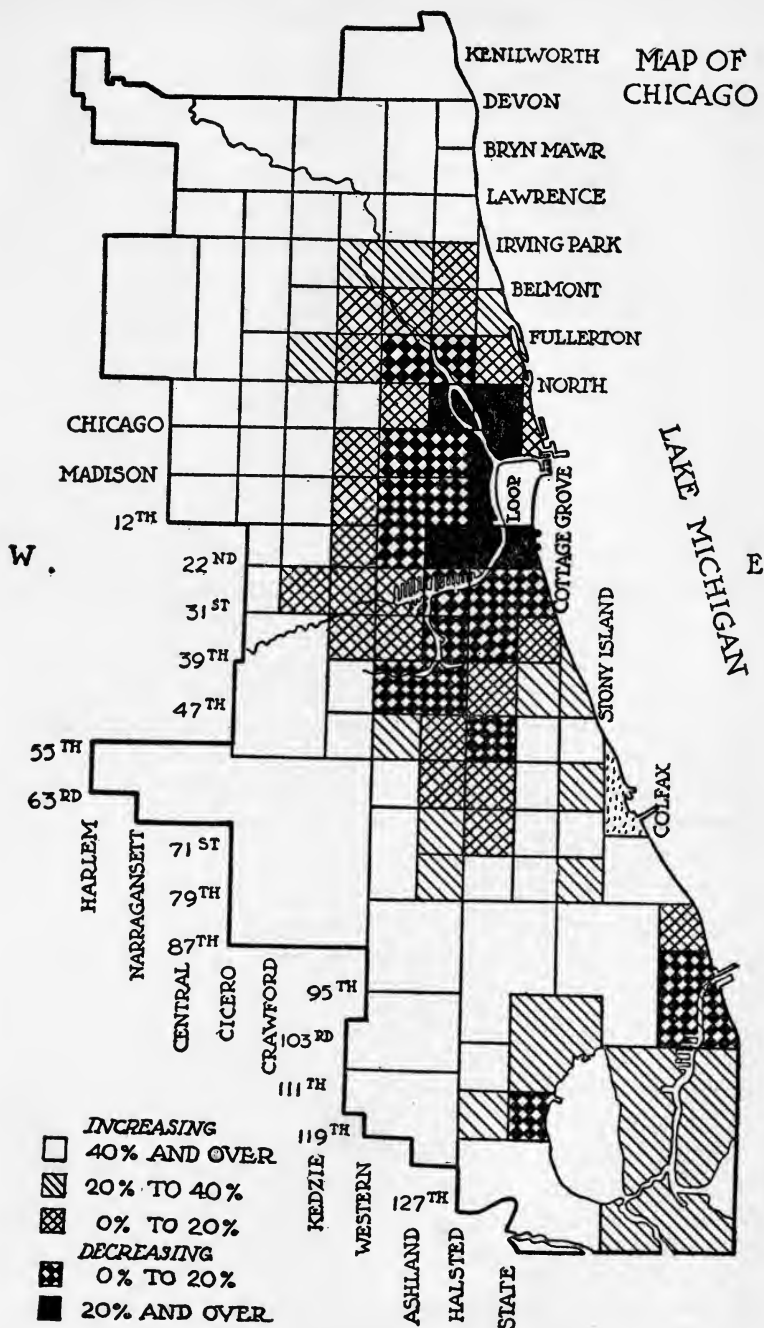


FIG. 3.—Areas of increasing and decreasing population in Chicago between 1910 and 1920.



of delinquents in this report. All the variables considered are used solely to indicate differences between community backgrounds. The facts concerning increasing and decreasing population serve as a basis for differentiating between the areas of high rates of delinquency and those of low rates. It is probable that decreasing population, rather than contributing to delinquency, is a symptom of the more basic changes that are taking place in those areas of the city that are subject to invasion by industry and commerce.

The coefficient of correlation between the percentage increase and decrease of population in the 113 areas and the rates of delinquents in the 1917-1923 juvenile court series is  $-0.54 \pm 0.04$ . Here again the reader is cautioned against ascribing causal significance to this coefficient or to any of the coefficients presented in the remainder of the chapter. Throughout the chapter coefficients are presented to indicate in a more exact manner the degree of association between rates of delinquents and the several indices of community organization and disorganization which are considered.

The above coefficient would be somewhat higher were it not for exceptional rates of increase in a limited number of areas in the outlying districts of the city where new communities develop between 1910 and 1920. There appears to be a rather close and linear association between rates of delinquents and percentage of increase or decrease in the population in all of the 113 areas except those where the increase in the population is more than 100 per cent. In these areas there is no corresponding decrease in rates of delinquents. It is interesting to note, however, that while some of these large outlying areas show a marked increase in population, they contain within them small areas near industrial developments which show a decrease in population and also a concentration of cases of delinquents.

Despite the fact that the districts near the center of the city show a decreasing population, the net density of population, as measured by the number of inhabitants per acre in the area not occupied by industry, is greatest in the areas within two miles of the central district and tends to decrease with considerable regularity out from the inner zone. In general, the areas with the highest rates of delinquents fall within those sections of the city having the greatest density of population. The notable exceptions to

this tendency are found in the high-class apartment districts, where the density is relatively high but the rates of delinquents are low, and in a few outlying areas where the rates of delinquency are comparatively high but the density is low because of the presence of considerable unoccupied land.

**Home Ownership.** The question of home ownership is especially germane to the subject under consideration in this report. In order to determine the possible relationship between home ownership and delinquency, the percentage of the families owning homes in each of the 113 square-mile areas in the City of Chicago was calculated. This percentage for each of these areas is indicated in Figure 4.<sup>14</sup>

According to Figure 4, the rates of home ownership for the several areas range from 3.7 to 71.9. In general, it appears that most of these areas in the districts adjacent to the Loop and the major industrial centers outlined in Figure 1, show relatively low rates of home ownership, while the rates in outlying districts are usually high.

The extent to which the rates of home ownership tend to increase with each successive area from the center of the city outward is revealed in Figure 5.<sup>15</sup> With the exception of Radials I, VII, and VIII, the rates increase with marked regularity along each of the radials. Radials II and III begin with a rate of 6.3 and terminate with rates of 60.0 and 71.6, respectively. Radials IV and V begin with a rate of 7.1 and terminate with rates of 39.6 and 59.3, respectively, while the rates along Radial VI range from 15.9 in the area adjacent to the Loop to 70.6 in the area near the city limits. The variation in the rates along Radials I, VII, and VIII stands in sharp contrast to those of the five other radials. These three radials pass through high-class hotel and apartment house neighborhoods along the Lake Shore in which the rates of home ownership are necessarily low, since the families in these areas seldom own the apartments in which they live. The presence of these neighborhoods along Radials I, VII and VIII interferes with the smooth and regular increase in the rate of home ownership noted in connection with the five other radials.

---

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.*

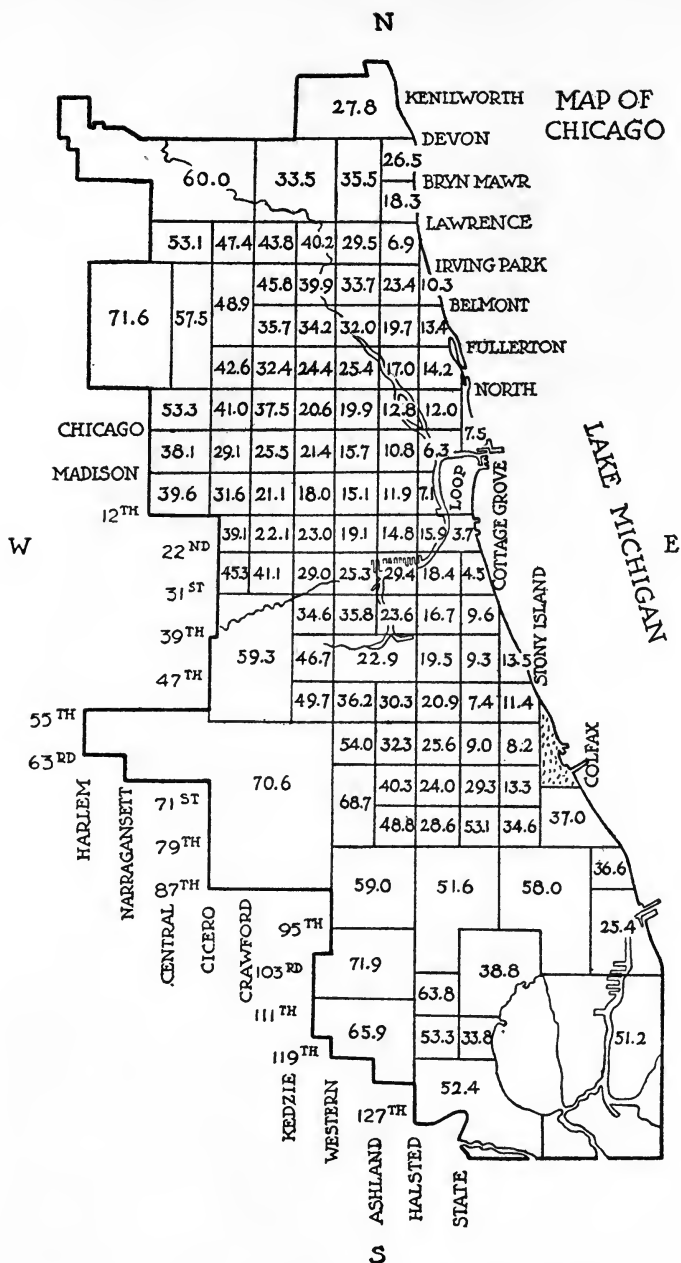


FIGURE 4. Rates of home ownership by square-mile areas



When Figure 5 is compared with Map III, it is clear that with the exception of Radials I, VII and VIII, the rates of delinquents and the rates of home ownership show in general a rather definite inverse relationship. That is, as the rates of home ownership increase in each successive area along these radials the rates of delinquents show a regular decrease.

The correlation of the rates of home ownership in Figure 4 and the rates of delinquents in Map II yield a coefficient of  $-0.42 \pm 0.05$ .

While the above coefficient of correlation suggests a significant inverse relationship between rates of home ownership and rates of delinquents, it does not afford a basis for assuming causal relationship between these two variables. Even if this coefficient were much higher, as it would be were it not for the exceptional situations in the hotel and apartment house districts, still no causal significance could be attached to home ownership. All that could be assumed would be that low rates of home ownership and high rates of delinquents on the one hand, and high rates of home ownership and low rates of delinquents on the other hand, occur together in the same area. It is probable that the variation in both the rates of home ownership and the rates of delinquents is due to the operation of basic processes in city growth.

In order to show the correlation between home ownership and delinquency in a more idealistic manner, the rates of delinquents presented in Map II were divided into five groups upon the basis of a class interval of three, and rates of home ownership in the areas represented by each of these five groups were calculated. The range of rates of delinquents and the rates of home ownership in each of these five groups are presented in Table II.

**Table II. Relationship between Rates of Delinquents and Rates of Home Ownership.**

Rate of delinquents	Rate of home ownership
12.0 and over.....	10.0
9.0 to 11.9.....	16.8
6.0 to 8.9.....	22.7
3.0 to 5.9.....	28.4
0.0 to 2.9.....	33.6

When rate of home ownership and rate of delinquency are compared upon the basis of general units, as illustrated in

Table II, they show a close inverse relationship. It is clear from this table that in the areas with the highest rate of delinquents, the rate of home ownership is low, while in the areas with the lowest rate of delinquents, the rate of home ownership is more than three times greater than it is in the areas with the highest rate of delinquents. This relationship, which is revealed more clearly when these two variables are treated idealistically, as in Table II, suggests a general, rather than a specific, relationship between them.

**Economic Dependency.** The areas adjacent to industry and commerce are also characterized by low rents and low family income. These are complementary characteristics. The rents in old, dilapidated buildings in deteriorated neighborhoods are naturally low and these low rents attract the population group of the lowest economic status.

The areas of low economic status are indicated in a general way in Figure 6,<sup>18</sup> which shows the areas of high and low rates of family dependency. These rates of dependency are based upon the total number of families which received financial aid from the United Charities and the Jewish Charities during 1921. The rates represent the percentage of the families in each area that received financial aid from these two agencies during the year. While it is not assumed that this series of dependency cases furnishes an ideal index of the economic status of all of the families in these areas, it is probable that, with the exception of some Negro communities, it outlines the poverty areas rather accurately.

The areas in black on Figure 6, which show the areas of highest rates of dependency, are concentrated, as in the previous figures, around the central business and industrial section and in the stock-yards district. The second class of areas—that is, those with rates of dependency ranging from 1.5 to 2.0—are concentrated just outside the highest-rate areas in the center of the city, in the “back-of-the-yards” district, and in the South Chicago industrial district. On the other hand, the areas of lowest rates are in the outlying residential communities.

The corresponding variation in the rates of delinquents and the

---

<sup>18</sup> *Ibid.*

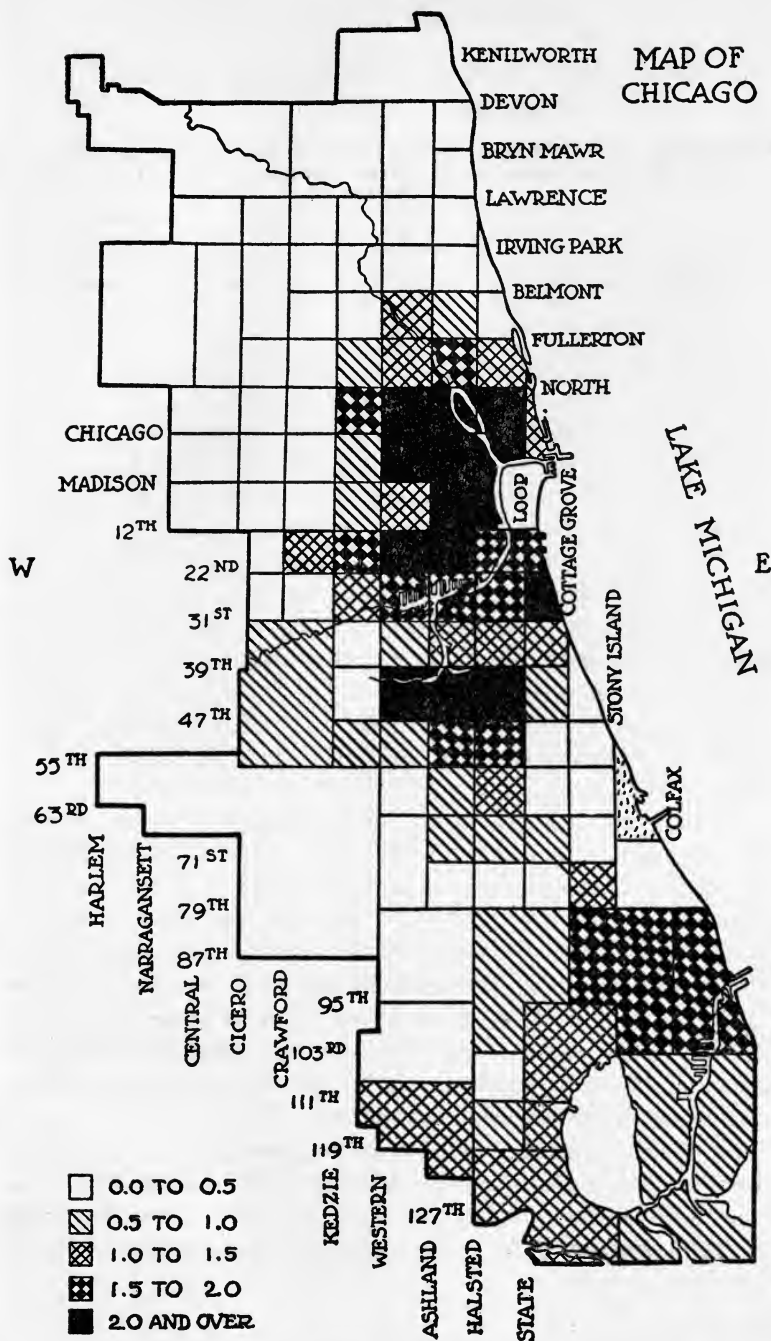


FIGURE 6.—Rates of family dependency

rates of dependency in the five groups of areas outlined in Figure 6 is indicated in Table III.<sup>17</sup>

**Table III. Relationship between Rates of Delinquents and Rates of Family Dependency in the Five Groups of Areas Outlined in Figure 6.**

Dependency rates	Rates of delinquents, 1917-1923 juvenile court series
2 and over.....	9.2
1.5 to 2.....	7.1
1 to 1.5.....	6.4
0.5 to 1.....	5.1
0 to 0.5.....	2.9

It has been found that the variation in rates of delinquents as between the areas with highest rates of dependency and those with the lowest rates of dependency is 11 to 2.2 in the police series, 9.2 to 2.9 in the juvenile court series, and 3.2 to 0.8 in the juvenile court commitment series. These facts indicate that there is a marked similarity in the variation of rates of family dependency and rates of juvenile delinquents, since for each decrease in rates of dependency there is a corresponding decrease in rates of delinquency for each of the three series of delinquents. The coefficient of correlation between these rates of dependency and the rates of delinquents in the 1917-1923 juvenile court series is  $0.74 \pm 0.03$ .

The inferior economic status of the families in the deteriorated areas is again suggested by the distribution of the children brought before the juvenile court on dependency petitions. The cases were secured for the period 1917-1923 and show a geographic distribution similar to that of cases of the delinquents for the same period. When rates for this series of dependent children were calculated upon the basis of the total number of children under 15 years of age, the areas showing the high rates were grouped around the center of the city and the industrial districts and those with low rates were in the outlying districts.

In order to show the similarity in the geographic distribution of delinquents and this series of dependent children, the 113 areas were grouped into five classes upon the basis of the magnitude of the dependency rates, and rates of delinquents were calculated for these groups of areas. (See Table IV.<sup>18</sup>)

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*



**Table IV. Relationship between the Rates of Delinquents and Rates of Dependent Children in Five Groups of Areas.**

Rates of dependent children	Rates of delinquents, 1917-1923 juvenile court series
1.6 and over.....	10.2
1.2 to 1.6.....	9.0
0.8 to 1.2.....	6.5
0.4 to 0.8.....	4.3
0 to 0.4.....	2.3

The coefficient of correlation, calculated upon the basis of the rates of dependency in this series and the rates of delinquents in the 1917-1923 juvenile court series, is  $0.82 \pm 0.02$ .

A third series of dependents used in this study included the children in families which received financial aid at the Cook County Juvenile Court under the provisions of the Mothers' Pension Act during the period from 1917-1923. Rates of dependency in this series were calculated upon the basis of the total population under 15 years of age in the 113 square-mile areas. Here again the rates showed wide variations between areas and a distribution similar to that of the two other series. When the rates for this series of dependents are correlated with the rates of delinquents in the 1917-1923 juvenile court series the coefficient is  $0.63 \pm 0.04$ . Thus all three series of dependent cases show a geographic distribution very similar to that of juvenile delinquency.

### Conclusion and Recommendation

The conclusion from the preceding survey of the relation between delinquency and housing is that delinquency is concentrated in the areas of bad housing and is associated with a complex of conditions, of which bad housing is only one. There is no sufficient reason for believing that an appreciable reduction in delinquency rates will result from improvement of individual houses if other things remain unchanged. The conclusion, on the contrary, is that a reduction in delinquency rates is most likely to result from a program which combines improvements in housing with modifications in other elements in the complex. This combination means, at the least, the development of improved housing in neighborhood units.

Fortunately the plans for neighborhood units have already been carefully outlined by Clarence Arthur Perry.<sup>19</sup> This neighborhood unit should have a physical plan which would make the neighborhood relatively distinct. This may be secured by using arterial highways as boundaries of the unit and making the streets within the unit curving, so that through traffic will be deflected, and by establishing within this neighborhood the essential community institutions such as a school, a church, a playground, and a community center. A physical plan of this nature will tend to produce neighborhood organization and a local social control which are lacking in many parts of the modern city. By a program of this nature it is likely that the condition of social disorganization in which crime and delinquency flourish may be replaced by a condition of community organization. At the least, a program of this nature will provide a physical setting in which community organization can more easily be developed than in the usual arrangement of houses.

In ordinary times, the development of houses in accordance with a neighborhood unit is extremely difficult. If in the present circumstances the construction of houses on a large scale and in accordance with definite plans is to be undertaken, the relation of the individual houses to the neighborhood unit is a matter that can be taken into consideration.

The principal recommendation of the Group on Housing and Delinquency is that any large-scale plan for the development of housing should be related to a plan for the construction of neighborhood units in which community organization can be more readily developed and in which the problems of social life, including delinquency problems, can be more readily brought under the control of the local group.

### **Suggested Research Projects on Housing and Delinquency**

The following projects are suggested as means of determining more specifically than is now known what are the effects of poor housing conditions as causes of crime and of juvenile delinquency:

---

<sup>19</sup> See Committee on Regional Plan of New York and Its Environs, "Neighborhood and Community Planning," *Regional Survey of New York and Its Environs*, New York, The Committee, 1929, Vol. VII. (Monograph One.) See also "Planning for Residential Districts," *Publications of the President's Conference on Home Building and Home Ownership*, Washington, 1932, Vol. I.

1. A study of the delinquency-rate change in an area in which housing conditions are arbitrarily improved and other conditions remain fairly constant. In order to eliminate the influence of general economic or social conditions, another area in which no change in housing conditions is made should be studied at the same time as a control. This committee knows of no American city in which the requirements for a study of this nature could be found. In London and Liverpool, however, large tracts have been cleared of old buildings and replaced by new buildings, while a considerable portion of the residents of those tracts remains constant. The determination of the portion of the children who become delinquent under the old conditions and under the new conditions should be fairly simple. A more precise measure of the effect of the change in housing might be found by an intensive history of each family which remained in the area after the change, but this would be a more difficult and expensive study.

2. A study of the delinquency-rate change in an area in which the housing conditions remain fairly constant except for natural deterioration but other factors, such as the racial composition of the population, vary. In order to eliminate the influence of general social or economic conditions and the natural deterioration of the houses, another area, in which the particular variable which is being studied remains constant should, as in the previous instance, be studied at the same time as a control. For instance, in New York City on the Lower East Side near 86th Street is an area which had a low delinquency rate 15 or 20 years ago when Germans lived in that area but now has a very high rate with Jewish and Italian residents. An intensive study of this area in comparison with another area in which housing conditions and national composition of the population have remained fairly constant during the same period would be of value in establishing the importance of housing conditions.

3. Select an area in which the population is relatively homogeneous in every respect except housing and then attempt to determine within this area the frequency of delinquency in the poorer houses and in the better houses.

4. A survey of case histories of girls who have become delinquent, from the point of view of overcrowding in the home.

## CHAPTER III

### THE EFFECT OF HOUSING CONDITIONS UPON THE EFFICIENCY OF INDUSTRIAL WORKERS<sup>1</sup>

The effect of housing conditions upon the efficiency of industrial workers is a subject upon which there is little statistical information. While the excellent effect of good housing upon the morale and production of workers is generally recognized, most of the literature deals with the subject in a general rather than in a specific fashion.

In an effort to obtain any recent figures which might have been gathered letters were sent to

The National Industrial Conference Board, New York.

The Union Health Center, New York.

The Chamber of Commerce of the United States, Washington, D. C.

Morris Knowles Incorporated, Pittsburgh, Pa.

The U. S. Steel Corporation, New York.

The Prudential Insurance Company of America, Newark, N. J.

The U. S. Public Health Service, Washington, D. C.

Also to twelve firms spread through the country, employing a total of approximately 500,000 workers.

None of these organizations was able to supply statistical data which dealt directly with the effect of housing conditions on the efficiency of industrial workers. That the subject is one difficult to analyze may be judged by the reply of the manager of the U. S. Steel Corporation Bureau of Safety, Sanitation and Welfare:

"We have always believed that the living conditions of an employee materially affect his efficiency. However, good housing does not always correct bad living conditions; yet good housing conditions have a tendency to correct bad living conditions. Many things enter into this—for instance, the question of ventilation, the well sleeping with the sick, and the matter of proper foods. In other words, some people will live badly even under good housing conditions."<sup>2</sup>

Despite these rather negative replies there appears from the

---

<sup>1</sup> Prepared for the Committee on Housing and the Community by the Group on Housing and Industrial Workers, W. Irving Clark, M. D., chairman, Miss Agnes L. Peterson, and Royd R. Sayers, M. D.

<sup>2</sup> Close, C. L., personal letter.

literature to be a consensus of opinion on the subject which may be stated as follows:

1. The efficiency of industrial workers depends upon many factors, chief of which are:

- (a) The worker's income.
- (b) His education.
- (c) His health.
- (d) His personal habits.
- (e) His housing.

2. Industrial management, as a whole, believes that poor housing conditions reduce the worker's morale and affect his personal health. Thus in the report of the Industrial Conference called by the President, March 6, 1920, one finds the following:

"It is unnecessary to point out the intimate relation which exists between efficient production and the condition of life to which a man or woman returns at the close of a day's work. When the employees of industry and commerce return to families who are housed in dwellings that are crowded, unsanitary, inconvenient, and unlovely, these men and women suffer in health and well-being, and consequently are unable to render that effective productive effort which the nation needs. . . . Bad housing creates a destructive restlessness that swells the volume of industrial discontent."

3. Organized labor believes that good housing and good homes make for contented and efficient workers.

The Executive Council of the American Federation of Labor at the Vancouver Convention in 1931 made the following statement:<sup>3</sup>

"Home is a very fundamental force in shaping the lives of children and in conditioning the effectiveness of adults. Adequate and comfortable housing promotes health, comfort, morals. Aside from the comforts and pleasure in a creditable home, that invaluable spiritual force—the spirit of home—has a fairer chance to fasten its roots in a home that offers substantial comforts and facilities for efficient living."

William Green, President of the American Federation of Labor, said:<sup>4</sup>

"The problems of home building and home ownership are of vital concern to wage earners in every relationship of life. Satisfaction in home comfort and environment is essential to that content of mind and physical well-being

<sup>3</sup> Report of the Executive Council of the American Federation of Labor to the Fifty-first Annual Convention (Vancouver, B. C.), Washington, The Federation, October, 1931.

<sup>4</sup> Green, William, personal letter.

that help to good living and efficient work. Good surroundings and beauty in physical environment have much to do with a constructive attitude of mind that is invaluable in a worker and a citizen."

The National Women's Trade Union League of America writes in part as follows:

"Better housing, in our experience with the woman worker in industry, has a definite relation to good workmanship because a restful as well as stimulating environment plays a determining part in upbuilding the factors, psychological as well as physical, which make for present-day efficiency."<sup>6</sup>

4. Overcrowding, poor sanitation, and a bad environment produce a lowered physical standard and susceptibility to fatigue.

The normal fatigue caused by usual factory work is frequently accentuated by the fatigue induced by the conditions involved in poor housing.

In regard to this Doctor Spaeth in a study of *The Problem of Fatigue*, says:

"The fatigued industrial worker is not, then, simply the individual who is weary at the close of a day's work, but one who, having rested insufficiently, comes to his job, day after day, with a diminished working capacity."<sup>6</sup>

5. The physical health of workers who are poorly housed is less uniform, and absenteeism and high turnover are more frequent among them than among those who are properly housed. Thus Seiberling<sup>7</sup> states:

"An analysis of the causes of turnover in our plant (the Goodyear Tire & Rubber Company) revealed that while wages was a small factor, housing was at the very forefront." p. 19.

Allen<sup>8</sup> reports that 840 replies to a questionnaire sent to plants in eastern and middle-western states, show that the factory turnover was lowest in localities reporting adequate housing.

6. In consequence of fatigue and ill health there is a tendency

---

<sup>6</sup> Christman, Elizabeth, personal letter.

<sup>6</sup> Spaeth, R. A., *The Problem of Fatigue*, from the Physiological Laboratory School of Hygiene and Public Health, Johns Hopkins University, 1919.

<sup>7</sup> Seiberling, Frank A., "Industrial Housing Does Pay," *The Nation's Business*, Vol. IX, No. 2, February, 1921, pp. 19-20.

<sup>8</sup> Allen, Leslie H., "The Workman's Home," *Transactions of American Society of Mechanical Engineers*, Vol. 40, 1918, pp. 215-226.

for reduced production and for spoiled work to occur among those workers who are poorly housed.

7. Bad housing appears to be one of the factors responsible for accidents in the home. Such accidents reduce industrial efficiency and produce absenteeism.

The National Safety Council in its reports on the Accident Hazards and Problems of Cincinnati, Ohio, 1924, and Accidents in Cleveland, 1925, shows that in each case the home accidents occur in those sections where the foreigners, colored and other low-paid workers, live. The housing in these districts is poor.<sup>9</sup>

8. On the other hand, industrial management, as a whole, believes that good housing in the community is an asset, both to the worker and to the factory. In support of this Waldo states:<sup>10</sup>

"Industrial housing is a worth while undertaking only when it attracts desirable employees and retains them after they are once on the payroll. . . ."

As a result of questioning 88 industrial firms, Waldo found that

"In 86 cases better housing of the employees encouraged better workers to come to the plant. Eighty-four firms reported that housing had been largely responsible for reducing labor turnover. Three gave no information and one reported that labor turnover had been increased."

The reader's attention is invited to the report by Magnusson<sup>11</sup> of the U. S. Bureau of Labor Statistics in which, as a result of replies to a questionnaire sent 180 companies, he states that employers are almost unanimous in the opinion that good housing is beneficial to their workers.

9. In conclusion, the committee finds that there is need of more statistical data on the effect of housing on the efficiency of industrial workers in the United States.

Those engaged in research in industrial hygiene should give attention to the housing factor in their problems.

---

<sup>9</sup> National Safety Council, Chicago, Illinois.

<sup>10</sup> Waldo, Russell J., "Factors of Industrial Housing," *Management and Administration in Manufacturing Industries*, Vol. X, No. 5, November, 1925, pp. 251-254.

<sup>11</sup> Magnusson, Leifur, "Housing by Employers in the U. S.," *Bulletin No. 263*, U. S. Bureau of Labor Statistics, Washington, U. S. Government Printing Office, October, 1920.

## CHAPTER IV

# HOUSING AND SAFETY<sup>1</sup>

### Summary

This report presents and discusses statistics indicating the basic importance of accident prevention and fire prevention in the home as well as elsewhere. Of the 99,000 accidental deaths annually in the United States, about 30,000 occur in the home. Of these home fatalities, falls are the greatest cause and about one-sixth are due to fire. Fires cause a property loss of about \$500,000,000, of which \$160,000,000 occurs in dwellings.

Suggestions are offered for application in building, equipping and using the home. In building, fire hazards suggest noncombustible materials, fire-stopping, and adequate insulation of chimneys. Accident hazards direct attention to stairways and various mechanical features. In equipping the home, stoves, furnaces, gas equipment and electrical equipment need especial attention. A fire extinguisher should always be provided.

In using the home, care and caution must largely be depended upon to avoid accidents and fires. Items of caution with respect to falls, cuts and bruises, poisons, electrical appliances and fire hazards are given. The text must be consulted for details.

The relation of safety in the home to the community is discussed. The fire hazard calls for adequate water supply, a fire-fighting organization, and proper limitations on building. Ignition of wooden shingle roofs by sparks is a principal cause of conflagrations. Community planning can reduce automobile accidents to pedestrians, by providing playgrounds, by suitably locating schools and by routing through traffic.

Education for safety, both in school and for adults, is a large factor in achieving desired results. Publicity for recommendations is essential. Community organization for education and public support is an important factor.

---

<sup>1</sup>Prepared for the Committee on Housing and the Community by the Group on Housing and Safety, Morton G. Lloyd, Chairman, Robert S. Moulton, Sidney J. Williams.



Legislation needed for safety includes:

1. Building Code
2. Fire-prevention Code
3. Arson Law
4. Individual-liability Law

Research possibilities are outlined.

Detailed statistics and a brief list of available material on the subject are given in appendices.

### Introduction

The realization of the extent to which accidents and fires in the home result in the loss of life and property will be sufficient to emphasize the importance of giving attention to these elements when building and occupying a home. In 1930, home accidents in the United States resulted in a loss of about 30,000 lives, according to estimates made by the Statistical Bureau of the National Safety Council. Of these fatalities, 11,600 are attributed to falls, and 6,600 to burns and scalds. Nonfatal home accidents have been estimated at 4,500,000. Of these home accidents, 40 to 50 per cent are falls. About half of them occur to children and about one-third to women.

The total of accidental deaths in the United States in 1930 was approximately 99,000, of which 33,000 were attributed to the motor vehicle and 19,000 were classed as industrial accidents. Although motor-vehicle fatalities head the list, it is seen that accidental deaths in the home constitute a close second. Every effort to reduce this toll is most urgent, and it should have serious consideration in all plans for the building and operation of the home. It also demands attention in community planning.

As already indicated, falls rank first as a source of home injury. Of all the falls, about one-third occur upon stairways or steps. The next most numerous type has to do with slippery floors and rugs. It is at once evident that to cope with this problem requires care, both in construction of the home and in the housekeeping. Tables given in Appendix II, p. 201, show the relative frequency of the different types of accidents and their importance from the standpoint of preventive measures. Falls upon the ice, in bathtubs, from ladders, chairs, and tables, are all important, while fatal burns and scalds occur so frequently as to compel active considera-

tion. It will be noted that electrical fatalities occur principally where wet conditions prevail, with accidents in the bathtub leading the list. These are accidents where a person, while in the tub, attempts to move or manipulate some electrical appliance such as a heater or vibrator. Cuts and contusions are frequent in number but seldom fatal in effect.

The fire hazard is a very important element in the housing problem, for uncontrolled fire may destroy the home, may result in loss of life and personal injury, disrupt the family life and, in the case of sweeping fires which reach conflagration proportions, may destroy an entire city. The majority of fires can be prevented through the exercise of reasonable precautions and such fires as may start despite precautions can be controlled in their incipency through the application of recognized measures of fire protection.

United States Bureau of the Census reports do not segregate home accidents. When corrected for scalds and burns from molten metal, they indicate an annual loss of life by fire of about 7,200. From the viewpoint of fire-protection authorities, any death which would not have occurred if there had been no fire may be broadly classified as due to fire. An analysis by the National Fire Protection Association, of fires in which 1,423 lives were lost, showed a considerable percentage of deaths caused directly or indirectly by fire which would probably not be reported to the Bureau of the Census as such. It has consequently been estimated by that authority that an annual loss of at least 10,000 lives should be attributed directly or indirectly to fire.

An analysis of typical fires, by the Fire Waste Council of the U. S. Chamber of Commerce, showed that approximately 60 per cent of all fires were in dwellings and that approximately 70 per cent of the loss of life occurs in such buildings. About two-thirds of those involved were women and children. About two-thirds of the fires occur in urban districts and one-third in rural districts. An analysis by the National Fire Protection Association indicates that 59 per cent of the deaths occur to children and 26 per cent to women. It also indicates that nonfatal injuries are in number about 2.5 times as great as the fatalities.

Various statistics of the losses by fire and the distribution of

losses as to cause, location, etc., are given in Appendix III, p. 205. The conclusions to be drawn from these tables are that the largest factors in loss of life by fire in homes are the improper use of gasoline and other inflammable liquids, and defects in the construction and arrangement of buildings which allow fire to spread and to suffocate or cut off the exit of occupants before they have opportunity to escape.

The total loss of property by fire in the United States is estimated by the National Board of Fire Underwriters at approximately \$500,000,000 annually. The proportion of this loss which occurs in home fires is not definitely determined on a national basis, but a compilation of reports from seven typical states indicates that 60 per cent of the total number of fires and 32 per cent of the total annual loss, or \$160,000,000, occurs in dwellings.

The statistics show that heating and cooking equipment and their attendant chimneys and pipes constitute a most important cause of fires and that smoking and the careless use of matches are also very important causes.

The point of origin of fires is shown in an analysis of 10,000 fires in New York City. This analysis shows that basements and kitchens are the most frequent points of origin of home fires, and directs attention to fire safety measures in these locations.

The statistics presented in the appendices and the above statements emphasize the need for attention to fire and accident prevention in the construction of the home and in its later occupancy. The following portions of this report segregate definite suggestions to be followed in building the home, suggestions to be followed in equipping it, and suggestions to be followed in its later operation. There is also a discussion of the fire problem as related to the entire community and a discussion of accidents which occur outside of the home and in residential districts.

### Suggestions for Building a Home

From the standpoint of fire hazards, the best construction of a building is to make its exterior walls, floors, roofs, and interior partitions of noncombustible material. With modern building materials this is an entirely feasible proposition as the walls and floors may be constructed of concrete reinforced with steel or of

hollow clay tile, and various suitable materials are available for interior partitions and roofs. These are mentioned later. It has been so customary, however, to make use of lumber for joists, flooring, and the studs of partitions that due consideration is not usually given to the use of noncombustible materials for these purposes. We are accustomed to think of steel-frame buildings and reinforced-concrete construction with respect to office buildings, apartment houses, and other large structures. It should be realized, however, that it is entirely feasible to build a small dwelling of noncombustible materials without prohibitive expense.

**Exterior Structural Elements.** The roof and, unless isolated and not exposed to external fire hazards, the outside walls or finish are required to resist brands and other modes of fire attack, and in built-up localities it is desirable that they confine a fire within the building to such an extent that a complete burning-out will not be unduly hazardous to nearby buildings. Almost all of the incombustible types of roofing, such as slate, clay, and concrete tile, cement-asbestos, metal sheets, and metal shingles have sufficient fire resistance to prevent ignition of the boards supporting them from chimney brands or brands from an adjacent burning building. The protection afforded by the metal roofings can be increased by placing asbestos felt between the roofings and the boards. Prepared asphalt-saturated rag-felt roofings afford fair resistance against brands, the effectiveness depending mainly on the thickness of the roofing and the amount of mineral surfacing present. Wood shingles are less resistive to brands and may give off flying brands when burning that can set other combustible construction on fire. Weathered wood shingles are particularly subject to attack from brands.

As coverings for outside walls, we have a range in fire resistance beginning with board finish followed in order by stucco on wood lath, stucco on metal lath (both over wood framing and boards), masonry veneer over wood frame, and load-bearing masonry walls. Well-maintained paint coatings will slightly increase the fire resistance of a board finish against an exterior exposure fire. Masonry walls 8 inches or more in thickness will generally give adequate protection against outside fires in residential districts.

**Interior Construction.** Since most fires originate inside, em-

phasis should be given to the importance of interior structural provisions that will aid in preventing origin and spread. Interior fire origins range from sparks and match flames to rapid burning of quantities of inflammable liquids.

The basement, if housing the heating plant and fuel and other storage, gives rise to many fires and a smoke-tight and fire-resistive separation from the upper stories is desirable. Plaster board, asbestos board, and plaster on metal or wire lath, applied on the basement ceiling joists are effective. A double first floor with incombustible felt between the two board layers adds appreciably to fire resistance and smoke-tightness. Protecting the floor members for a space of several feet above and around the furnace will help to prevent fires resulting from overheating and defective or fallen smokepipes. Complete fire separation by means of a fire-resistive and incombustible first-floor construction is advantageous even where the rest of the house is of ordinary construction.

The interior partitions, floor and roof constructions determine the main fire-resistive characteristics of the building. The wall, ceiling and floor finish is the first to receive the attack of fire from interior origins. Wood and combustible fiber-board finishes can be made a little less inflammable by application of paint, whitewash or calcimine. Well-applied whitewash coatings are as effective as any ordinary or fire-retardant paint. Plaster boards, plaster on wood lath, plaster on plaster board, and plaster on metal or wire lath give greater protection, the effectiveness being approximately in the order given. For interior work, gypsum plaster has been found to be very effective, as it is not likely to fall off during the fire exposure and high temperatures do not penetrate it rapidly. Where walls and ceilings are protected against moderate fire attack, the fire may burn through the wood floors almost universally used with wood framing and spread into the hollow spaces back of the finish, particularly where no fire-stopping is present.

Fully fire-resistive interior construction for dwellings can now be obtained in a number of forms, including, for floors, several forms of light steel-protected framing, hollow clay or gypsum tile between reinforced-concrete ribs or protected steel beams, and reinforced-concrete slabs and beams.

Nonbearing partitions can be of steel studs covered with plaster

on plaster board or on metal or wire lath, of hollow clay tile or gypsum blocks. Load-bearing partitions can be of heavy steel studs protected by plaster on metal or wire lath or of suitable thickness of hollow clay tile, concrete block, poured concrete or brick.

**Fire-Stopping.** Where framing involves hollow spaces with combustible framing members, spread of fire can be retarded by closure of the hollow spaces at the floor, wall and roof lines. Well-fitted board or plank stops can serve as temporary checks, but somewhat better results can be obtained with noncombustible materials fully filling the spaces in walls and partitions opposite hollow spaces in floors and for 4 inches or more above them. Board stops at the mid-height of walls and partitions are also desirable. With outside masonry walls without hollow furring spaces, fire-stopping need be applied only at intersections of hollow interior partitions with floor and roof constructions and at the exterior roof lines. Among incombustible materials suitable for fire-stopping are cinders, ashes, refuse mortar, plaster, concrete, hollow tile, brick, gypsum block and mineral wool. The coarser material would have to be mixed with fine material or mortar to prevent large voids. The fire-stopping can be supported on horizontal wood strips not less than 2 inches thick beneath the filling and by one-inch boards opposite the hollow floor spaces. Metal or wire mesh has also been used for these purposes. Considerable care is required to obtain a good job of fire-stopping.

**Chimney Construction.** Flue lining inside of the brickwork is desirable where the latter is not more than 4 inches thick. If the space between lining and brickwork is filled with Portland cement or cement-lime mortar for the full length of the chimney, the lining will be likely to remain in place even if cracked and to function almost as well as if it were intact.

Wood beams, joists, or partition members should be placed at least 2 inches away from the chimney walls and the intervening spaces filled with mortar. The ends of floor boards can come nearer but it is desirable to leave a mortar-filled space around the chimney not less in thickness than the plaster.

**Doors.** For usual interior construction there is little object in providing more protection for openings between rooms than is afforded by wood doors and frames of the ordinary designs. With well-protected basement ceilings or a fire-resistive first-floor con-

struction, a heavier wood door or the lighter type of metal or metal-clad door leading to the basement would be in accord with the conditions, considering that in this location the door is normally closed. For interior wood framing protected by the more effective methods previously outlined, and for full fire-resistive construction, doors heavier than the usual thin-panelled type should be used.

**Lightning Rods.** Considerations that determine the advisability of installing lightning rods cannot be fully stated here. These considerations are discussed in *Miscellaneous Publication No. 92* of the Bureau of Standards, entitled "Code for Protection against Lightning." This publication, which has been approved by the American Standards Association, contains detailed specifications for the construction and installation of lightning rods. There is less likelihood of a dwelling being set on fire by lightning than a barn, on account of the nature of the contents, but for the protection of the family, rods will be desirable in those locations where the dwelling is particularly exposed to lightning storms.

The purpose of a lightning rod is to provide a conducting path over which a discharge may be carried harmlessly to ground. The essential features are air terminals on the higher parts of the building, connected by down conductors to grounding electrodes in good electrical connection with the earth.

**Stairways.** Attention has been called to the fact that falls are the main cause of accidental injuries in the home and that a large number of falls take place upon stairways. The design of stairways should consequently receive detailed consideration.

To begin with, a stairway should not be made too steep and a proper proportion should be maintained between the dimensions of riser and tread. Satisfactory values are 7 to  $7\frac{1}{2}$  inches for the riser and 10 inches for the tread. In any case, these values should meet the condition that the sum of the tread and twice the riser equals 24 to 25 inches, and the angle of slope is between 30 and 36 degrees. Steps of a flight should be uniform in dimensions, as unequal risers cause tripping. A nosing of about one inch is desirable.

It is desirable to provide every flight of stairs with a handrail, and even if this is not done where the stairway is inclosed on both sides by solid walls, it should at least be done where there

is a possibility of falling over the side of the stairs, as is commonly the case on cellar stairways. Outdoor steps especially need rails in northern latitudes, owing to ice.

Winding stairways are to be avoided where possible, as they particularly invite falls. If a doorway is placed at the head of a flight of stairs, which has merit from the standpoint of preventing the spread of fire, the door should either have a glazed window so that one may see through it or there should be a landing at least 30 inches wide on the stair side of the door. Accidents have occurred from persons stepping through a doorway without realizing that the door was at the head of a stairway. In homes in which there are young children, a gate should be placed at the head of the stairs. In other houses, provision should be made for mounting such a gate.

Provision should be made for the adequate lighting of stairways, and this is most readily accomplished where electric lights are installed. The lighting unit should be so placed that all treads are illuminated. It is desirable to have the control switches located at both bottom and top landings.

Where space is at a premium, it frequently occurs that insufficient headroom is left over stairs. This is poor economy, and stairway design should always include generous headroom so that tall persons will not bump their heads when starting down the stairs.

Consideration of exits from burning buildings indicates that it is desirable to have two stairways in different portions of the building. In small dwellings this may not be considered warranted in every case, but where only one stairway is provided, there should be windows in the upper stories that open out on to verandas or the roofs of porches so that a means of exit is provided in case the stairway is obstructed by fire.

**Mechanical Hazards.** There should be railings around porches, balconies, etc., to prevent falling off the edge. Such falls may cause serious accidents even when the height is not more than 2 or 3 feet. An acceptable substitute for the railing along the edge of a porch is a set of flower boxes which extend the complete length of the porch.

Low window sills should be avoided, especially at stairway landings. Where they already exist, the window should have one or more cross-bars to prevent children from falling out. Built-in



window screens have advantages, from the casualty-prevention viewpoint as well as others, over portable types.

In designing the bathroom, especially where built-in tubs are installed in tiled rooms, provision should be made for a hand grip built into the wall.

In the North, sloping roofs which end over steps or walks should be equipped with snow guards to prevent heavy weights of snow from sliding onto the head of the passerby.

### Suggestions for Home Equipment

**Stoves and Furnaces.** The principal hazard concerned in the use of furnaces and stoves is the possibility of starting a fire. Stoves should be mounted well away from walls of combustible material and if placed on a wooden floor should have a sheet of metal underneath and be mounted with an ample air space underneath. If close to any woodwork, they should be separated by a screen of noncombustible material.

The smokepipe should be kept clean, should be securely supported and well separated from woodwork or other combustible material. Where passing through a combustible partition a ventilated thimble should be used providing an air space around the pipe. Smokepipes should be occasionally inspected for rust holes or leaky connections. Fuel should not be stored too close to stoves or furnaces.

Chimney openings should be covered when not in use. Chimneys should be built solid from the ground up and not supported on any wooden construction.

Hot ashes should be placed in metal containers only, should not be mixed with rubbish, and should never be piled against wooden partitions or other woodwork.

If oil burners are used, the storage tank should preferably be placed outdoors and below the level of the furnace room. Inside tanks should be limited in capacity to 75 gallons and should be vented to outside air. It is best to have the oil feed from a small auxiliary tank. If gravity is used it must be safeguarded by an automatic shut-off valve to prevent overflow. Failure of this precaution or failure of the valve to act is the principal cause of fires from oil-burning house-heating equipment. In selecting a type of oil burner, a buyer who is not in position to make the necessary

tests should insist upon a type which has been approved by Underwriters' Laboratories or other competent organizations.

The use of gasoline stoves introduces into the home a very definite hazard, for which there is no warrant, in view of such available substitutes as ranges using kerosene or bottled gases. Cautions regarding the use of inflammable liquids are given in a later section of this report. The following paragraphs apply to bottled gases as well as the more widely used manufactured or natural gas.

**Gas Equipment.** Householders may use gas for heating or cooking. The hazards consist in the possibility of creating a fire or explosion and in the possibility of asphyxiation from the gas or from the products of combustion.

Stoves and other appliances should be of a type which has been tested and approved by the American Gas Association or other competent laboratory. They should be installed where there is little possibility of setting fire to combustible objects; they should be kept in correct adjustment; and they should be supplied through permanent piping rather than through flexible tubing. If tubing is used, it should be of standard quality and the shut-off cock should be at the point of connection to the permanent piping and not at the appliance end of the tubing.

The installation of gas piping should always be by competent workmen, and if repairs become necessary, they should not be made by amateurs. Piping should be rigidly mounted in position and should not be used as supports for other articles, such as clothes lines. Valves and cocks should be placed at convenient points. No device intended to modify the character or control the supply of gas should be installed without the approval of the gas company. Plugged or capped outlets should never be opened by anyone but an experienced workman.

If leakage of gas is indicated by odor or otherwise, all flames should be extinguished, the room should be ventilated, and the leak detected by placing a soap solution on the joints and cocks to locate the point of escape. Temporary repairs may be made by plugging the leak with soap. A permanent repair should be made as soon as possible.

Incorrect adjustment of burners sometimes leads to incomplete combustion with the generation of the deadly gas, carbon monox-

ide. If such a condition is suspected, generous ventilation should be immediately supplied and the gas-fitter or the gas supply company requested to make proper adjustment. If one is overcome by carbon monoxide, removal to fresh air is the first requisite.

When installing a gas appliance there are five things to be kept in mind: (1) Make sure that the location is suitable for the work intended; (2) make tight and strong gas connections; (3) see that the appliance is so placed that nothing can take fire from it; (4) provide for enough fresh air to completely burn the gas; and (5) provide for the proper disposal of the products of combustion.

Large space heaters, water heaters, and the ovens of cooking stoves should have flue connections.

The gas burners of a kitchen stove are likely to become clogged with grease or other material, and they should be cleaned periodically inside as well as outside.

**Electrical Equipment.** Electrical installations should be made with standard materials and by skilled workmen. The specifications should require compliance with the rules of the National Electrical Code and the National Electrical Safety Code. These specifications will secure an installation properly grounded, equipped with fuses and equipped to comply with a number of precautions, such as the use of porcelain sockets in basements and an inclosed main switch.

At distribution points, if the small switchboards known as panelboards are used, they should have no live parts exposed (dead front type) and there should be not only a switch ahead of every fuse but a main switch to disconnect the conductors which feed the panelboard. Wall switches are a convenience in every room but should invariably be supplied in the bathroom or other rooms where the hands may be wet. In the bathroom, it is desirable to have no receptacles for connecting portable appliances so that there will be no temptation to use such appliances in that room. If the use of an electric air heater is contemplated between seasons when the room may not be otherwise heated, it is far preferable to make a permanent installation of such heater and to equip it with a wall switch. Fatal accidents have been all too frequent from the handling of electrical heaters in bathrooms.

It is convenient to have a wall switch at the point of usual en-

trance to a room to control the lights. If a large room is frequently entered from more than one door, it is convenient to have control switches at both entrances, and this can easily be accomplished. Similar dual control is desirable for the electric lights on stairways, one point being at the foot of the stairs and the other upon the upper floor.

A modern convenience is provided in the form of small capacity circuit-breakers which may be used in place of both switch and fuse to control branch electrical circuits, including both lighting circuits and those of appliances such as the washing machine. A circuit-breaker is a type of switch which will automatically open the circuit whenever it is overloaded or a short-circuit occurs. It thus takes the place of a fuse and at the same time it can be closed and opened by hand like any other switch.

In damp places, the covers of snap switches and the sockets for electric lamps should be of porcelain or other nonconducting materials, as such parts, if of metal, may become alive through failure of the insulation. Contact with live conductors is especially dangerous in damp places.

In planning the electrical installation, separate circuits should be provided for any apparatus taking more than 6 amperes. Such apparatus will include an electric range, an electric water heater, and the group of appliances used in the laundry.

For rural dwellings which are supplied through overhead conductors, it is desirable to protect against the possibility of a lightning surge coming in over the wires and either shocking the inmates or setting the building on fire. This is not likely to happen if the wires enter the building through conduit, but if the wires enter separately, the one which is not grounded should be equipped with a simple form of lightning arrester whose other terminal is connected to ground. This arrester may be of the form commonly used to protect against similar surges on radio antennae, and should not be in proximity to inflammable material.

Lighting fixtures should be chosen with the idea of providing adequate illumination without producing the glare which results from exposed lamp filaments or surfaces of high intrinsic brilliance. General lighting can be best accomplished by ceiling units. Wall lights should be installed for ornamental purposes only and

should be shaded to avoid glare. Local lighting can be provided by well-shaded table lamps and floor lamps.

Portable lamps, like all portable appliances, should be supplied with lamp cord of standard quality, as cords are a source of many domestic fires and accidents. In the near future, lamp cords of standard quality will be sold carrying a label about every six feet so that it can be readily identified by the customer. In the meantime, care should be taken to see that any cord purchased or used has been approved by competent authority.

Portable appliances also should be chosen with the same care and should not be accepted without evidence of similar approval. Many appliances, such as portable water heaters, have been placed upon the market, which involve hazards of both fire and shock.

It is best not to use portable appliances in the bathroom at all. If they are used, they should never be handled when hands are wet or when one is in the bathtub. Many fatalities have resulted from a lack of this precaution.

The householder should see to it that when fuses are blown they are replaced by new fuses of the proper size (not over 15 amperes for ordinary lighting branch circuits). The fuse gives the householder protection against overloaded electrical circuits which may be a source of fire.

No portable appliances should be handled at any time when the hands are wet or when a person is touching plumbing, radiators, lighting fixtures or other grounded metallic objects.

Brass-shell key sockets should not be installed in the basement or other places liable to have damp floors. Only porcelain or composition sockets should be employed under such circumstances.

There are many electrical devices which are safe while in use but need to be turned off when the temporary use is ended. This is particularly true of heating devices. Pressing irons left on ironing boards and not turned off have been the greatest cause of electrical fires, by burning slowly through any combustible material beneath. This hazard is greatly lessened by the type of iron having automatic temperature control. The thermostat disconnects the electric current when the iron reaches a predetermined temperature and reconnects it when the temperature falls below.

Paper or cloth articles should never be placed in contact with lamp bulbs, and such materials should be used for lamp shades only

when liberal ventilating space is left between the shade and the lamp bulb.

Heating devices, such as electric blankets, have caused a number of casualties and fires, and if used at all, should be used with caution.

Electrical appliances and machinery used in laundry work, such as washing machines, involve a special hazard owing to the likelihood of the work's being done in a damp place, such as a basement. In such places, exposed metal parts should be grounded by a wire connection to prevent them from becoming alive through any failure of insulation. A motor-operated wringer should be equipped with a guard or with a device which will stop the motor or release the wringer in case one's hand gets caught in the wringer.

**Fire-Fighting Equipment.** Most fires in residences start from a small beginning and can usually be readily extinguished before they gain headway and do much damage, if the proper means is at hand and is promptly applied. The prompt application of water or the use of blankets may readily extinguish a small blaze which might otherwise develop into a disastrous fire. An ordinary garden hose with a nozzle kept where it can be attached quickly to a faucet or permanently attached to a valve in the water piping is an effective fire-fighting device.

In every residence, however, and especially in suburban and rural homes where there is no public water supply, a portable fire extinguisher should be available. It is much more effective than improvised means, such as blankets or water thrown from a pail, and it has the added advantage that it can be kept permanently in some assigned place where it will be available when needed.

Portable hand extinguishers, the effectiveness of which has been demonstrated by many years of use, are available on the market. It should be noted that no one type of extinguisher is suitable for every kind of fire and that types of extinguishers which are suitable for fires in ordinary combustible materials may be ineffective or even dangerous for fires in inflammable liquids or fires in electrical equipment. Likewise, types of extinguishers designed for inflammable-liquid fires or electrical fires may not be effective for fires in ordinary combustible materials.

There are many reliable types of extinguishers available, each suitable for use under certain conditions. A full discussion of the

various types, with directions for their operation and maintenance, will be found in the Regulations on First-Aid Fire Appliances recommended by the National Fire Protection Association.

A type well suited for general household use is the soda-and-acid type, obtainable in sizes of  $1\frac{1}{4}$ ,  $1\frac{1}{2}$  and  $2\frac{1}{2}$  gallons. This extinguisher must not be exposed to freezing temperature.

The foam fire extinguisher is comparable with the soda-and-acid extinguisher for general use and, in addition, is particularly effective on oil, grease and gasoline fires. It is consequently useful around oil-burning furnaces and in garages, but it, too, must not be exposed to freezing temperatures. It is not suitable for electrical fires.

For protection in unheated portions of dwellings or in out-buildings there are available types of extinguishers using nonfreezing chemicals.

The carbon-tetrachloride extinguisher is available in the one-quart size for home use. It is effective for gasoline and oil fires, as around automobiles. It is also suitable for fires in electrical motors and other appliances, since it does not injure electrical insulation as water would. It does not require protection from freezing. It sometimes produces gases, the inhalation of which may be dangerous in a small or poorly ventilated room.

Any type of extinguisher, to be of value, must be maintained in operative condition. With most types of extinguishers, an annual test and recharging are recommended. This should be made the occasion of operating the extinguisher as at a fire and instructing all members of the household in its operation.

When procuring a fire extinguisher of any type it is of prime importance that the appliance purchased be reliable and conform to recognized standards of safety and performance, such as those set up by Underwriters' Laboratories. The householder will generally have to rely upon the results of tests made by such laboratories as evidenced by inspection labels or certifications.

A desirable equipment for the home is some sort of automatic fire alarm. Detector equipment mounted in basements, furnace rooms, storage rooms and other such places as are seldom occupied or are the common points of fire origin is especially advantageous. Lives are often lost in fires which get started during the night and

spread undiscovered to a magnitude with which first-aid equipment is unable to cope.

In basements and storerooms of apartment houses, the use of automatic sprinklers is often desirable.

### **Suggestions for Management and Use of the Home**

Along with proper construction and equipment in the house, good habits with respect to management and use are essential if accidents are to be avoided. In this section of the report a brief statement of hazards which can be avoided by good housekeeping and safe practices will be given.

**Falls.** Falls occur from a great variety of conditions. Some are due to reckless practices upon the part of the individuals concerned, while others are due to the lack of proper facilities or to physical conditions. The latter have been considered in the previous section of this report.

Falls are often due to articles left standing on steps. Cellar and attic stairways are especially subject to use for storing such things as scrub buckets, brooms, ironing boards, and what not. This condition is objectionable, but a greater hazard probably results from small objects, such as marbles, pencils and toys, which are often left on stairs by children. These objects may cause bad accidents by rolling or sliding when someone steps on them.

Waxed stair-treads and landings, loose rugs and slippery floor surfaces, especially at the top or bottom of stairways, are likely to cause falls, particularly among children, aged, and infirm persons. Small rugs and carpets near stairways should be avoided. All rugs should be free from wrinkles and curled edges. It is desirable to prevent their sliding by fasteners or by the use of underlays or a special treatment of the under surface.

Falls also arise from slipping in soapy bathtubs, on wet or icy porches or outside steps. Rubber heels, often intended to avoid slipping, become accessories to such falls when wet, smooth pavements are encountered, unless they are of the antislip type. The high heels, so common on women's shoes, frequently cause sprained ankles when used for rough wear.

Many persons have been killed by falling in bathtubs, which may become quite slippery when covered with soap, especially where the bottom is not flat. Where the tub is built in, there should be on



the side next to the wall a firm grab-rail to help one to get in and out of the tub with minimum risk.

Almost every house has a ladder of some kind. It may be a stepladder for indoor use, or a ladder made up with rungs or slats for outdoor use. Ladders require frequent inspection for the sake of safety. Examine your ladder frequently and give it a shake or two. Many ladders that are dangerous and would serve a better purpose as firewood are in daily use. A good, sound, sturdy ladder, appropriate to one's needs, is a good investment in both utility and safety. The type which folds to form a chair avoids any problem of storage.

The use of ladders calls for care. Many accidents have occurred from tools and other objects falling from ladders, and striking persons below. Walking underneath ladders is hazardous, and should be avoided. Many stepladders are provided with a folding shelf for holding a bucket of water or other working materials. It is dangerous to stand on this shelf, which has not been designed to hold the weight of a person, and the ladder may be out of balance with such a distribution of weight. Care should be taken to see that the spreaders are in proper position before mounting the ladder.

The straight ladder, utilized more for outdoor than indoor work, must be used with care on smooth floors or pavements, as there is danger from the base slipping out. A proper angle of slope is about 1 in 4.

Standing on chairs (especially rockers), on frail boxes, crates, or barrels, and on insecure stepladders is responsible for many falls. Such falls can be entirely avoided by proper care in selecting a mount and seeing that it is steady and secure. Fragile crates and boxes should be avoided, as also should chairs without solid seats. The arm of a chair is a dangerous place upon which to stand and rocking-chairs should never be used for this purpose.

An upturned barrel makes a precarious stool, as frequently there is nothing to hold the head from being forced inward. Projecting nails on the inside may inflict bad scratches or worse.

Serious and even fatal injuries have resulted from falling only 2 or 3 feet, and the hazard is especially great for elderly persons, whose bones are brittle and nerves less able to stand sudden shocks. Serious injuries have even resulted from falling out of bed.

Children frequently experience bad falls by climbing outside of porch railings or upon the ledge of mansard roofs. Where opportunities of this kind invite the venturesome child, cautions should be voiced from time to time, or perhaps, good methods of climbing taught. Similarly, every child should be given some hints on tree climbing. Pole climbing should be discouraged on account of the danger from live wires.

**Cuts and Bruises.** Many cuts and contusions are experienced in the home through the careless or improper use or neglect of tools or other objects with sharp or ragged edges. Children are especially prone to use tools improperly when not instructed in proper and safe methods. In using knives and other edged tools the cutting stroke should be made in such a direction that a slip will not cause the blade to cut the operator. Especially when the point is being forced through an object is this precaution necessary. The heads of hammers and axes may fly off if not securely fastened. Monkey wrenches with jaws which have been sprung make trouble when a hard pull causes them to let go.

Trash in the form of broken glass and crockery, or old tins with ragged edges, is a frequent cause of bad cuts and scratches. Such articles should be handled carefully and should be placed at once in appropriate receptacles for disposal. Where such trash is permitted to accumulate on vacant lots, children should never be allowed to run barefoot, as serious cases of blood poisoning have resulted from cuts produced in this way.

Stumbling over objects and bumping into furniture can be largely avoided if upon leaving a room, and especially when putting out lights, care is taken to see that furniture and other objects are in their usual positions and are not in the customary paths between doors.

**Fire Hazards.** Fireplaces should be screened and combustible material kept away from smokepipes, furnaces, and other sources of heat. Ashes should be put in metal containers. Keep the tops and ovens of stoves free from grease. Thaw frozen water pipes with hot water, not an open flame. Set clothes to dry a safe distance from stoves, heaters, or fireplaces, and make sure that gas burners are a safe distance from towel racks or curtains.

Provide covered metal cans to hold necessary collections of

rubbish. Remove rubbish regularly from the house, particularly from cellars, attics, closets, and such out-of-the-way places. If there is no city rubbish collection or built-in incinerator, burn the rubbish in an incinerator made of sheet metal or heavy, small mesh wire in the back yard as far away from the dwelling as possible. Where there are accumulations of old boxes, furniture, paper, combustible trash, or debris, fires can get a quick start and spread rapidly. Carelessly discarded "smokes," matches, or sparks from stoves or furnaces will prove to be less of a fire hazard if there is no rubbish or other combustible material to ignite. Some kinds of waste material may ignite spontaneously.

Never bring gasoline, benzine, naphtha, or similar volatile inflammable liquids into the home for any purpose. Use carbon tetrachloride for removing spots from clothes. Send to the dry cleaner any garments needing extensive cleaning. If kerosene is used in lamps or stoves, fill these only by daylight and when cold. Do not use kerosene or gasoline to start fires in stoves.

Inflammable liquids, especially gasoline, are treacherous in that they may be used many times without accident where atmospheric conditions may not be right for an explosion. But properly mixed with air the explosive power of a pint of gasoline exceeds that of two sticks of dynamite.

Use friction lighters or safety matches wherever possible. Keep matches where small children cannot reach them. Provide a liberal supply of ash trays throughout the house. Cultivate careful smoking habits. Do not smoke in the garage or barn, nor in the attic. Do not smoke in bed.

The holidays, Christmas, Hallowe'en, July Fourth and others, introduce special hazards into the home in the form of combustible decorations, candles, lanterns, or fireworks. Do not permit fireworks at all. Purchase decorations which have been impregnated with a solution which prevents their burning readily. Use asbestos instead of cotton wool for Christmas "snow." Use substantial candlesticks, and never put candles on Christmas trees, in windows near curtains, near decorations, or in paper lanterns. Remove Christmas "greens" by New Year's, as they are inflammable when dry.

The fuse is the "safety valve" of the house wiring system.

Replace "blown" fuses with new ones. Using pennies or pieces of wire instead of new fuses invites fire.

Any type of stove polish made of benzine should be banished from the home, as it involves a hazard even when used on a cold stove.

Oily clothing, rags, or waste thrown in a corner may start a fire from spontaneous combustion. Such materials should be disposed of immediately after use.

Great care should be taken that pots and pans containing hot liquids are placed on the stove or table in such a manner that they cannot be easily knocked off. This applies especially where small children are present, as many injuries have been caused from their upsetting such pots where within reach.

**Poisons.** The number of substances containing poison used or stored about the home should be reduced to a minimum. They should be plainly and unmistakably labeled, and the more dangerous ones should have their stoppers tied in or have the hazard otherwise indicated. This is sometimes done by placing pins in the corks of bottles containing poison. Such bottles should be inaccessible to children. Bottles of poison should not be kept in juxtaposition to medicine bottles.

Many paints and varnishes contain poisonous substances, such as lead, and after they are handled the hands should be thoroughly washed before partaking of food. Some such materials may cause poisoning through contact with the skin. Painting should be done only in well-ventilated places, and the creation of dust and spray from painting or removing paint should be avoided in the house without special precautions. Highly volatile varnishes should never be used in the presence of a fire or open flame. Many cleansing and disinfecting substances are poisonous, and great care should be exercised to avoid their misuse. Fumigation of the home should not be attempted except by experts.

Some of the materials used for cosmetic purposes present a real hazard. Rouge for cheeks or lips has been the cause of serious mercury poisoning. Hair removers are usually corrosive in character and sometimes poisonous. Dyes used in blackening hair may cause serious poisoning if taken internally. It is well to treat all materials of this character as poisons.

One of the most dangerous poisons is carbon monoxide gas.

This is sometimes generated by the incomplete combustion of fuel, but a more common source is the exhaust from an automobile. It is dangerous to run an automobile engine in a closed garage, and any warming up or working upon the car, should be done with doors wide open. Carbon monoxide is colorless and odorless so that its presence is not easily detected. The first symptoms are headache, ringing in the ears, nausea, chilliness, and a feeling of weakness. If there is any suspicion of the presence of carbon monoxide, outside air should be sought immediately. Gasoline may be poisonous on prolonged or intense inhalation.

**Electrical Hazards.** In replacing fuses where any metal current-carrying part can be touched, as is usual with cartridge fuses, the switch should first be opened to make such parts dead.

Portable cords used in connection with lamps, pressing irons, fans, and other portable appliances, should be of standard construction, and inquiry whether they have been officially approved should be made at the time of purchase. Whenever the cord becomes worn so as to expose the conductors, it should be immediately replaced. Where cord is subject to especially hard usage, as in a garage, it should be of specially sturdy type commonly designated as Type S. When stationary or portable appliances, but especially the latter, are being handled, care should be taken not to make contact with water faucets, radiators or other grounded metal in the house. Occasionally such articles become alive through failure of internal insulation and in that case it is particularly hazardous to touch any grounded metal at the same time. It is best not to use any portable appliances in the bathroom and not to handle them elsewhere when the hands are wet.

A type of appliance which is especially prone to be put upon the market in an unsafe condition is the portable water heater, and appliances of this type should not be purchased unless they are known to have the approval of Underwriters' Laboratories or other agency which conducts discriminating tests.

Heating pads and heating quilts if used at all should be used with caution as they present hazardous features. It is inadvisable for one to fall asleep with such a garment over him and with the current turned on.

If it is necessary to make extensions to the electrical installation

to supply new appliances, the work should be done by a skilled electrician. Such work may appear to be simple, but fires and accidents have resulted from amateur attempts and from the use of excessive lengths of portable cord, especially when not of a type to withstand hard usage. Cords should be as short as possible.

### The Community Fire Problem

Fire presents to the community a problem even more vital than that of the individual householder. Any individual fire unchecked may spread to destroy the entire community with loss of life and destruction of the home and community existence. The conflagration not only destroys the home itself, but its environment as well, and frequently, with the destruction of stores and factories, takes away the source of livelihood of the householder. A single home damaged or destroyed by fire may be repaired or replaced; its occupants may in large measure maintain their usual occupations and in time return to the repaired or rebuilt home. In the case of a sweeping conflagration, however, an entire city may be destroyed with a complete uprooting of the population and generally disastrous consequences. Fire-safety is accordingly generally recognized as an important function of government. The importance of the problem as indicated may be seen from a review of a list of city conflagrations compiled by the National Fire Protection Association which is given in Appendix III, pp. 213-16.

Fire-prevention measures are generally recognized as being a proper public function under the police power. There may be some doubt as to the extent to which the police power may enter the individual home in the control of matters which concern only the individual but, in the case of fire, any individual fire is a potential city conflagration. On this account the authority to control fire hazards under the police power is universally accepted.

Building code and other state and municipal requirements commonly govern such potential fire hazards as stoves, furnaces and their attendant chimneys and flues, and gas and electrical installations. The character of the individual building construction is likewise controlled by building codes for the purpose of minimizing the fire hazard. Requirements limiting the height and area of

buildings of combustible construction are an important element in the control of the community fire problem for it is only through keeping the combustible buildings to units of relatively small size that it is possible for public fire departments to extinguish fires at their point of origin and prevent the spread of fire to other structures. In the individual building, in addition to the limiting of height and area and combustible construction, the most important single factor is arranging the interior construction to retard, rather than facilitate, the spread of fire. The enclosure of stairways and other vertical openings and the placing of fire-stopping in combustible walls and partitions are exceedingly important in this connection.

The largest cause of city conflagrations is the ignition of wooden shingle roofs by flying sparks. Under certain conditions the brands carried from an initial fire may start a large number of simultaneous subsidiary fires at distances which are beyond the capacity of the fire department and which soon merge into a general conflagration. This hazard has been the determining factor in the great majority of the city conflagrations involving residence districts. Another vital factor is the distance between combustible buildings. These two factors are quite largely provided for in municipal regulations by ordinances requiring the use of fire-retardant roof coverings and specifying minimum set-back distances of combustible construction from the property line.

Subdivision of areas of combustible construction by streets of sufficient width to afford a point of vantage for fire-department operations is exceedingly important and should receive careful consideration in city planning. Further subdivision by park areas or other natural features is likewise of utmost importance, although such natural features may in some cases themselves introduce a hazard by interfering with access of fire fighting and by grass and brush fires originating in park areas.

An adequate water supply for fire-fighting purposes is of even more importance than the fire department, for the firemen are helpless without water. Water-storage and distribution systems should be planned with the possible fire emergency in mind. While the total amount of water required for fighting fires is small as compared with the annual domestic consumption, effective fire

fighting requires a great concentration of water at a single point for a short period. Failure to realize this and act accordingly has resulted in great loss in many American cities. It should be realized that, particularly in the smaller community, a very substantial proportion of the total cost of water supply and distribution system is for fire-protection purposes. To cite the extreme case, a 1-inch pipe may furnish sufficient water for domestic purposes in the individual house but, in case of fire, a hydrant supplied by at least a 6-inch pipe will be necessary for effective fire fighting. The proper distribution of hydrants is obvious, but the water-main system which supplies the hydrants cannot be seen and its importance is not ordinarily appreciated by the general public.

The importance of a properly equipped and adequately manned fire department should be obvious, but it is not always realized that the fire department, to be effective, must not only be properly equipped and adequately manned, but there must be systematic training and freedom from political interference. The function of the fire department is not merely fire extinguishment; an even more important function is fire prevention. Increasingly in American cities the fire department is becoming the main instrument for exercising the police power in fire-prevention matters. Regular inspections are made with the result that unnecessary combustible materials are eliminated and hazards corrected in a systematic manner. Fire departments are usually thought of as pertaining primarily to the larger community, but fire-department protection may similarly be made available even to the smallest town or rural community. Studies of the Committee on Farm Fire Protection of the National Fire Protection Association and by the United States Department of Agriculture show that in many instances fire departments have been organized that give effective fire protection even in isolated rural communities.

The fire-alarm system is a vital link in fire protection. Proper distribution of fire-alarm boxes and a reliable central station and transmitting system are essential. Fire-department experience over many years shows that the telephone, while a valuable adjunct, should be considered as purely secondary to the fire-alarm signaling system and that a standard fire-alarm system should always be



provided except for those smaller isolated communities where a telephone may be the only means of communication that is practicable.

The effectiveness of the various agencies that may function in the solving of the community fire problem depends entirely upon the extent of the realization of the importance of the problem by business men and by the general public. The fire problem is a vital one to the community and is deserving of the most careful attention by the community leaders.

### Street Accidents in Residential Districts

Motor-vehicle accidents on residential streets are numerous and are closely related to housing conditions and home management, since pedestrians are largely involved.

Of the 33,000 motor-vehicle deaths in the United States in 1930, approximately 15,000 were pedestrians and most of these were in cities. The distribution of these cases as between residential and other districts is not generally reported, but the Massachusetts Registry of Motor Vehicles report for 1930 shows 54 per cent of the fatalities (pedestrians and others) occurring in residential districts as compared with 16 per cent in business districts, 23 per cent in the open country, and the remainder scattering. The total of the motor-vehicle injuries in residential districts in the one State of Massachusetts in one year was more than 20,000. The City of Toledo in a three months' period reported that 1,638 motor-vehicle deaths and injuries, out of a total of 2,146, were in residential districts.

A few of these many motor-vehicle accidents on residential streets may involve two vehicles or a vehicle and a pedestrian, both of which are strangers to the neighborhood. But in the majority of cases the victim is a resident pedestrian, often a child playing in or crossing the street. Often the careless parking of cars by residents contributes to these casualties.

For accidents of this sort, and for street and highway accidents in general, there is no one remedy, but great reductions can be made by a combination of the following remedies appropriate to the particular circumstances.

**Street Planning and Design.** The town of Radburn, N. J., exemplifies an ideal subdivision layout. The schools, stores, and

other community buildings are so located that a child going to school, or an adult going to the neighborhood store, crosses no traffic thoroughfare at grade. Through traffic passes around and not through the community.

In other subdivisions, where the town planner does not have quite so free a hand, many of the same ideals can at least be approximated. This can be done by planning in advance which streets shall carry the heavy traffic—properly tied in, of course, with the general major street plan for the district—and then laying out the residential streets so that they will not attract fast through traffic. For street safety, adequate community planning is essential. Adequate street lighting reduces the hazards. Proper maintenance of paving is also a factor.

**Schools.** In locating or relocating a school, or determining the boundaries of the area to be served by an existing school, every effort should be made to avoid having children, especially small children, cross busy streets.

If it is necessary for school children to cross a traffic thoroughfare, an adult police officer should be provided at the necessary times to insure safe crossing. Schoolboy patrols should be stationed at other street crossings where the traffic is not heavy.

**Playgrounds.** A liberal number of playgrounds make it unnecessary for children to play in the street. These grounds should be so located that it will be unnecessary for children to cross busy thoroughfares to reach them. If a few crossings are unavoidable, a patrol or convoy system may be used.

One of the most serious problems of street accident prevention is found in a built-up residence neighborhood, with no or few playgrounds and with apartment or tenement houses covering so large a percentage of the area as to leave no adequate playspaces. Accident spot-maps always show a heavy toll on traffic thoroughfares traversing such districts. If more radical remedies are impracticable, a strenuous campaign of education among both drivers and children, and perhaps the closing of certain minor streets as play areas, are the only recourse.

**Parking.** A large element of hazard on a residential street is the presence of cars parked at the curb which may prevent a driver and a child going into the street from seeing each other until



*Courtesy of City Housing Corporation*

Underpass for pedestrians, beneath traffic way at Radburn, New Jersey.



*Courtesy of City Housing Corporation*

Overhead bridge connecting park walks at Radburn, New Jersey.

These photographs illustrate the achievement of safety for children and pedestrians, as well as convenience for motorists, through the development of a residential community as an entity.



too late to avoid collision. Parking on such a street can hardly be prohibited, but may be concentrated in certain blocks or certain parts of blocks if other parts must be unavoidably used for street play. As the intensive development of residential neighborhoods continues, it will be necessary eventually to require apartment houses to provide off-street garage facilities, so as to remove all-day and all-night parking from the street.

**Law Enforcement.** One large element in residential street hazards is, of course, the recklessness of a small percentage of drivers who go so fast that they cannot stop in an emergency. This is part of the general problem of speed regulation and law enforcement in the community. An up-to-date traffic ordinance, with appropriate use of signs and signals, is an advantage to the community, as is also an efficient police department and a separate traffic court.

### **Education and Community Organization for Safety**

Safety is fundamentally a matter of education, in two different ways. First, no matter how safe and convenient may be the design and equipment of a home, only a small percentage of the possible accidents will be avoided if the occupants persist in unsafe habits and practices. The skill, training, and attitude of the individual are far more potent in causing or preventing accidents than is his physical environment, whether in the home, or elsewhere.

Second, the other needed remedies—better design and equipment of houses, and proper protection on residential streets—will be provided and maintained only in so far as the general public has been educated to desire and demand them.

In the industrial safety work of the past twenty years, and more recently in the reduction of street and highway accidents, education along these lines has been found both necessary and effective. It is equally necessary and can be made equally effective in reducing home accidents.

One of the very best means of safety education is the schools and it is here that some of the most striking results have already been obtained. Each year since 1924 (to 1929, the latest for which official figures are available) there has been an actual decrease in the total number of children under 15 killed by accidents in the United States, notwithstanding the increase in population and not-

withstanding the 21 per cent increase in accidental deaths of adults during the same period. Before 1924 there were increases among both children and adults. This remarkable and encouraging change in the child-accident situation coincides with the large-scale promotion of safety work in the schools by the National Safety Council, endorsed by the National Conference on Street and Highway Safety and by many educators and educational associations. The favorable trend has been much more marked among children of school age than those of preschool age.

As about half of the child-accident fatalities occur in the home it is evident that the teaching of safety in the schools has affected in a fundamental way the habits and practices of children in the home as well as in school and on the streets. The recognized methods and materials of child-safety instruction do, in fact, give equal emphasis to home safety and public or away-from-home safety.

These results certainly prove that any school and any community which is not doing its utmost in safety instruction by the best approved methods is seriously negligent in its obligations to its school children.

How can we similarly educate the parents and other adults? Safety bears the same relation to adult education that it does to child education, and this is gradually being recognized by some of the organizations which have adult self-education as one of their objectives—notably the parent-teacher associations and the women's clubs. Any such body can do three things which are arranged in order of importance and effectiveness: First, ascertain the accident experience of its own members and see that they understand both the need for and the methods of avoiding accidents to themselves and their families; second, see that safety is properly taught in the local schools; third, support and, if necessary, initiate needed community measures, such as better laws, better enforcement, and a general community educational campaign.

Other obvious avenues for general public education in safety are the newspapers and other publications, the radio, street posters, meetings of all sorts, and special "campaigns." All these have been found effective in building up public interest in safety, resulting both in greater personal carefulness and in public support for the

necessary remedies. The chief difficulty or defect in most of these educational methods is their tendency to die out after a few months. To keep up a continuous community interest and activity it has been found necessary to have in each community some sort of permanent safety organization ranging from a safety committee in the chamber of commerce or other local body, in a small community, to an independent Safety Council with a paid staff, in the larger cities.

Public education for home safety is still very much in the pioneer stage. Home accidents are costly to the community but their cost is mostly indirect and does not fall directly upon agencies financially and otherwise equipped to do something about it—as in the case of industrial accidents. This is undoubtedly the reason why so little has been done, on any large scale, to bring the home safety problem squarely before the American people. There is need for much greater attention on the part of all kinds of community organizations.

One particular need is for much greater attention to safety on the part of the various home-visiting agencies. It is probable, although accurate statistics are still lacking, that the incidence of accidental death and injury is greater in the homes of those of lowest economic ability and especially those that are visited by the social and relief agencies. Through greater attention to accident hazards in these homes, the home visitors could do much not only to decrease suffering and financial strain in these families, but also to reduce the financial load on the community arising out of accidents for which the family is unable to pay.

In the field of fire prevention, attention is directed to the opportunities afforded by Fire Prevention Week, which is observed each year in October, and the activities of which are discussed in the *Fire Prevention Week Handbook*, published by the National Fire Protection Association. It has also issued a *Syllabus for Public Instruction in Fire Prevention*.

### Legislation

In addition to the education of the public to a recognition of the prevalence of accidents and fires and the possibilities of their prevention, there are certain basic methods of prevention which appear so important as to call for legislation which may be either

local or state-wide in scope. The enactment of such legislation and its adequate enforcement can do much to reduce the hazard. It is recognized, however, that unless such legislation is based upon public education and an aroused and intelligent public opinion, and supported by definite enforcement agencies, it is likely to be ignored and become a useless incumbrance upon the statute books.

The following items are recommended as subjects for legislation:

1. **Building Code.** Such a code should cover the necessary limitations for securing adequate strength in buildings and adequate lack of combustibility along with other provisions for the safety, health and welfare of the occupants, such as sanitation, provision of adequate light and ventilation, etc. Such codes are already common, being in some instances of state-wide application and in others municipal. A Model Building Code has been prepared by the National Board of Fire Underwriters and a similar effort is now being carried on by the Department of Commerce.<sup>2</sup>

2. **Fire-Prevention Code.** The fire-prevention code is especially valuable in cities in controlling fire hazards. It should preferably contain only the fundamental principles of fire prevention, leaving to the enforcing authority the promulgation of regulations covering details which will probably need changing from time to time. Such an enforcing authority should be set up preferably through a fire-prevention bureau in the municipal fire department. Such a municipal ordinance should cover such items as explosives, inflammable liquids, pyroxylin plastics, X-ray, photographic and motion-picture films, fireworks, paints, varnishes and lacquers, hazardous chemicals, refrigeration equipment, etc.

3. **Arson Law.** Such a law is intended, by fixing adequate penalties, to control incendiary fires. Such laws already exist in more than half of the states.

4. **Individual-Liability Law.** This may be a separate law or may be included in a fire-prevention ordinance. It is intended not only to emphasize the personal responsibility for carelessness through common-law liability, but to assess against those found to be responsible for fires the cost of extinguishing or attempting to extinguish such fires. The conviction is growing that much greater progress can be made in checking a fire waste if the person who has a fire is looked upon as a public offender rather than an

---

<sup>2</sup> Reports issued to date by the Department of Commerce Building Code Committee and available from the Superintendent of Documents, U. S. Government Printing Office, Washington, are *Recommended Minimum Requirements for Small Dwelling Construction*; *Recommended Minimum Requirements for Plumbing*; *Recommended Minimum Requirements for Masonry Wall Construction*; *Minimum Live Loads Allowable for Use in Design of Buildings*; *Recommended Practice for Arrangement of Building Codes*; *Recommended Building Code Requirements for Working Stresses in Building Materials*; and *Recommended Minimum Requirements for Fire Resistance in Buildings*.



unfortunate. Individual legal responsibility for loss by fire seems a drastic corrective to the ordinary American individualist who thinks his neighbors can look out for themselves no matter how unneighborly his own acts may be. It seems time, however, that such restraint should be exercised. France and Germany have already applied such principles with excellent results.

### Research

More effective work in the prevention of accidents in the home could probably be done if we had knowledge of the frequency of various kinds of accidents, both fatal and nonfatal, in various types of dwellings, such as apartment and tenement houses, lodging houses, single-family city residences, and farmhouses, and in families on different economic levels. Knowledge of the economic cost of home accidents is also lacking.

Engineering studies of the best designs for home equipment from the safety standpoint would be very valuable. Studies are also needed of the best methods for adult education along safety lines.

The National Bureau of Casualty and Surety Underwriters maintained a fellowship in the University of Chicago during the past year to make a case study of home accidents. Similar studies in other localities, with an attempt to determine fundamental causes and methods of prevention would be well worth while.

## CHAPTER V

# HOUSING AND CITIZENSHIP, RECREATION, AND EDUCATION<sup>1</sup>

### Housing and Citizenship

In gauging the influence of environment upon efficiency and well-being—those fundamental factors that have so much to do with citizenship—it must be admitted that it is next to impossible to prove positively that housing, as such, is the primary cause of the difficulties, physical and moral, that affect any generation. Yet, it is certainly reasonable to maintain that the indications are many that conditions that exist in the less-privileged areas of cities, towns and rural communities menace our national destiny.

The home, for the most part, centers the entire drama of life. It is the foundation and cornerstone of society—the first world into which the child is born and the source of adult power. Surely, then, the home should be an orderly, attractive, healthful place around which the idealism of the individual centers. Citizenship means something more than economic independence and political integrity. It should carry with it certain personal and social relationships from which the higher values of a progressive society emerge.

The very appearance of the slum stands against those influences that make for self-respect. At the present time, when tremendous forces are shaking the foundations of our economic and political structure, it is timely that those conditions which give every evidence of causing lowered vitality and lack of ambition, which put a premium on vice and crime, and challenge our civic life, be replaced by such a development of city planning, zoning, and housing that the next generation shall have, to the full, opportunities for constructive home influences and normal community life. The growth of the slums must be prevented and those that exist reconditioned or, where reconditioning is impractical, demolished. Moreover, any consideration of housing must include community devel-

---

<sup>1</sup> Prepared for the Committee on Housing and the Community by the Group on Housing and Citizenship, Recreation and Education, Mrs. Eva Whiting White, Chairman, Miss Alice L. Edwards, Bernard J. Newman, Clarence A. Perry, Joseph P. Tufts and Miss Edna Noble White.

opment. Housing is no longer concerned with the home alone but with the home in its neighborhood setting.

Whatever may be said as to those who are strong enough to overcome environmental handicaps, it is clearly a prime necessity to stamp out degenerating influences. Fortunately, there is evidence to show that results are obtained when conditions are bettered.

By virtue of a Housing and Town Planning Act of 1909, passed by Parliament, the Corporation of the City of Liverpool, England, cleared 32 acres in order to erect healthful dwellings for 12,000 people. In the report of the Medical Officer of Health of Liverpool for 1912,<sup>2</sup> the following statements are made:

"There is undoubtedly a marked improvement in the habits of the majority of those who occupy Corporation tenements, as indicated by the external and internal appearance of the dwellings.

"To fully appreciate the marked change one must be conversant with the original unsanitary conditions under which these people lived. . . .

"At night the districts are quiet and orderly. The extra police supervision found necessary in many of the streets in which the dwellings are situated is not now required."

Then as to the children, from this same report:

"The improvement is particularly noticeable amongst the children, and is so marked that one can hardly realize that they are the same children who formerly lived and played in the unsanitary courts."

Similar statements are to be found in reports of the Corporations of the City of Glasgow, and of London where so-called "slum clearance" has taken place.

Further, in the United States, the reports of the housing associations of Philadelphia and of Pittsburgh present evidence which strengthens the belief that social problems lessen in intensity as acute housing situations are bettered.

In the City of Boston, a notoriously famous block called "the Morton Street Block" in the north end of the city had for fifty-one years been a center of attack by the health authorities and the charitable organizations. Hundreds of dollars and much human effort had been spent in endeavoring to meet the evils of poverty, sickness and degeneracy which existed there. This block held about

---

<sup>2</sup> *Report on the Health of the City of Liverpool during 1912*, by the Medical Officer of Health (E. W. Hope), Liverpool, C. Tinling & Co., Ltd., 1913, p. 269.

the same relation to Boston as did Mulberry Bend, Gotham Court, Bottle Alley, and Kerosene Row to New York before Jacob Riis, in his day, effected the transformation of that area. In 1919, the City Planning Board of Boston tore down the Morton Street Block and in its place established a playground. The result is that the Family Welfare reports are no longer tinged with melodrama when allusion is made to that section of Boston.

In the words of Elisabeth M. Herlihy, secretary of the Boston Planning Board:

" . . . But the real trouble is much more fundamental than the frailties of human nature. People cannot be compelled to live rightly until right living conditions are available.

"The clearing away of the old houses allowed sunlight to enter many of the adjacent homes for the first time in nearly half a century, and the windows, whose only outlook for years has been on dark and narrow streets, or dismal alleys, are now abloom with plants . . . " <sup>3</sup>

If such are the results of better housing, why tolerate conditions that so entwine the individual that all constructive efforts in education, philanthropy and civic training are negated.

Charles A. Ellwood states: <sup>4</sup>

"Poverty and pauperism are much more common in our cities than in rural districts. About one-third of the population of great cities may safely be said to live below the poverty line, while in such cities as New York and Boston from ten to fifteen per cent of the population require more or less charitable assistance during the year.

"The amount of crime in the cities is about twice as great as in the rural districts.

"Illegitimacy in the cities is from two to three times as great as in rural districts, and it is well known that vice centers very largely in our cities."

Such a statement is most certainly a challenge to cities.

From *500 Criminal Careers* by Sheldon Glueck and Eleanor T. Glueck, in the foreword by Dr. Richard C. Cabot is to be found this statement: <sup>5</sup>

"What sort of person is the average inmate of Concord Reformatory, so far as this group of 510 men may be taken as a fair sample? He . . . comes

---

<sup>3</sup> Herlihy, Elisabeth M., "Replanning Boston's Most Congested District," *American City*, Aug., 1919, Vol. 21, No. 2, pp. 109-110.

<sup>4</sup> Ellwood, C. A., *Sociology and Modern Social Problems* (New Edition), New York, American Book Company, 1919, p. 291.

<sup>5</sup> Glueck, S., and E. T., *500 Criminal Careers*, New York, Alfred A. Knopf, Inc., 1930.

... from ... (an) impoverished family living in a congested city area." p. xii.

It is always a fair question in reading such a statement to ask whether the congested area *per se* is to blame, or the impoverished condition of the parents. Not an easy question to answer, especially as many a fine citizen arises to occupy a position of trust and power in spite of similar handicaps. The point, however, is that society has no right to subject the individual to so great a drag. Minimum standards should at least be such as to safeguard its weaker members from the danger of being submerged by circumstance. Also, it is within reason to maintain that if minimum standards of decency in environmental conditions are established, by that much the individual and society are safeguarded. Because some appear to be immune from certain diseases, the health code does not lessen the rigor of its protective measures. It is certainly just as important not to minimize the results of conditions surrounding homes as it is to overestimate them.

Again, the New York State Crime Commission states:<sup>6</sup>

"In every case studied there were many causative factors—bad or broken homes, poor neighborhoods. . . ." p. 315.

Further, from this same source in regard to truancy, which appears in many an instance to be the first step toward a criminal career:

"Almost the entire group lived under conditions of extreme poverty and usually congested homes. . . . In general, the group of 251 cases lived under conditions of housing congestion twice as great as the average poor in congested areas. Unspeakable congestion, therefore, must have some relation to the truancy of this group, if not to severer offenses." p. 449.

This is a statement which makes one pause.

Clifford R. Shaw in *Delinquency Areas*,<sup>7</sup> which contains a map of Chicago showing the distribution of 5,159 boy school truants, states that the highest truancy rate (15.4) occurs in the square mile area adjacent to the Loop. The Loop is a part of Chicago which is characterized by industry and commerce, and a zone of deterioration now encircles this central business district. This

<sup>6</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "Individual Studies of 145 Offenders," *Report of the New York Crime Commission, 1928*, Albany, 1928.

<sup>7</sup> See Shaw, C. R., *et al.*, *Delinquency Areas*, Chicago, University of Chicago Press, 1929, p. 44.

zone is essentially one of decay and declining population. Frederic M. Thrasher says of this district: <sup>8</sup>

"In the drab hideousness of the slums, despite a continuous exodus to more desirable districts, people are swarming more than 50,000 to the square mile. Life is enmeshed in a network of tracks, canals, and docks, factories and breweries, warehouses, and lumber yards. There is nothing fresh or clean to greet the eye; everywhere are unpainted, ramshackle buildings, blackened and besmirched with the smoke of industry."

The Loop district of Chicago is clearly not an area where childhood would be likely to meet constructive influences.

Shaw goes on to say that: <sup>9</sup>

"Thus in Chicago it appears that in the absence of such disturbing factors as the stockyards and South Chicago industrial area, the rates (of truancy) tend to vary inversely with the distance from the central business district, the lowest rates occurring in the outlying residential areas. When exceptions to this general tendency appear, they occur in areas essentially of the same type as those districts of disorganization surrounding the Loop, where the rates are also high. From a careful examination of these radials, it appears that the variations in the rate reflect fundamental differences in community backgrounds."

From *Pamphlet No. 6* of the Cincinnati Bureau of Governmental Research, which presents an analysis of 11,180 misdemeanor cases, comes this statement: The two queries are: "Is the Residence of the Offenders Concentrated in One Section, Scattered Throughout the City, or Out of Town?" "Does the Residence Suggest Any New Methods of Crime Prevention?" Then there follows a chart. A study of the chart shows 73 per cent of the arrests made were of offenders who live in what is known as the congested area of Cincinnati or the "residential down-town section." The district where the colored live produces 20 per cent of the offenders. Of the total offenders arrested, only 12 per cent were persons who reside out of the city or else have no home. This pamphlet contains this further paragraph:

"Districts One, Two, and Four (where 73 per cent of the arrests are made) are tenement districts, with housing, recreation and general environmental conditions which are very conducive to crime. With these conditions remedied, there would probably be a reduction in crime on the part of the residents of these districts."

---

<sup>8</sup> Thrasher, F. M., *The Gang*, Chicago, University of Chicago Press, 1927.

<sup>9</sup> Shaw, C. R., *et al.*, *op. cit.*, p. 49-50.

Further evidence on the relation of the home to social forces, inseparable from this comment, is to be found in Volume I of the report, National Commission on Law Observance and Enforcement, where is to be found this, in pages lv and lvi of the introduction:

"If the first important influence upon the child's behavior is the family, the family itself cannot be considered in isolation from the community. . . . If the family attitudes and values are opposed to those in the community and if the family does not have a sufficiently strong hold upon the child to create a similar opposition in the child, as soon as the child himself feels the direct contact of the community through his neighbors and playmates, he is forced to make decisive choices as to conduct. . . . If the attitudes existing in the community were always socially acceptable, the situation would be less serious. . . .

"There are, unfortunately, communities in which antisocial influences and tradition exist to a significant degree. . . . In the better type of community, . . . a consistent set of acceptable standards are present to which the child can easily adapt himself."

Especially arresting is this statement from Vol. II, p. 388, of the same report:<sup>10</sup>

"As the older immigrant groups moved out of the areas of high rates of delinquents, the rates of delinquents among the children of these groups decreased and they tended to disappear from the juvenile court."

Another consideration: The general welfare rests on the honest use of the political franchise. James Bryce pointed out in his *American Commonwealth* that the crux of our national structure is the municipality. What do we find? The worst kind of political chicanery thriving in the congested areas of cities, in the very cities from which civic strength should spring. How can respect for government or belief in its beneficent functions exist in areas where only fragmentary steps for bettering conditions are ever taken and where ignorance flourishes and civic vision is crushed by virtue of the hard circumstances of the daily life. As long as such centers exist to thwart the development of great masses of the population, so long will the ward boss flourish. It is humorous, to say the least, to hear the blame for the wasteful conduct of city affairs laid upon the boss and his machine while the community fails to get at the source of the trouble.

<sup>10</sup> *Report on the Causes of Crime*, (Report No. 13, 2 vols.), National Commission on Law Observance and Enforcement, Washington, U. S. Government Printing Office, 1931.

As to all that is meant by the term "Americanization," the country is fortunate that her foreign born have so readily thrown off the effects of their first contacts in America, arriving as they do in our most neglected communities. Were it not that our immigrants represent, in the main, good, honest, red-blooded peasant stock, and were it not that the opportunities have been great so that they have, in large numbers, forged ahead and have been able to overcome the shackles of their early experiences, our toll of difficulties and, among them, political difficulties, would be far greater than they are. The time has come, however, when the pressure of getting a living and of moving up in the economic scale is increasing. Formerly, it was claimed that the difficulties of living in a congested area were not more pronounced because the congested areas of our cities changed their populations, generally speaking, every three to five years. That is, the foreign born came here, obtained work, their standard of living rose and they moved into more desirable parts of cities.

It appears at the present time, however, that this migration is checked. In fact, social workers from Hull House, Chicago, from Cleveland and the West End of Boston say that former residents have been forced to move back again within the last few years. Clearly, if this is the case, every effort should now be made to prevent those who are not as successful as their fellows from accepting the slum as an inevitable part of their lives. Such an acceptance will not only create a permanent slum population but a slum-minded population as well.

Whatever may be said of the resistance of the foreign born in the first generation, crime survey after crime survey points out that their children born here are not so fortunate. In this regard, the Subcommittee on Causes of New York's Crime Commission<sup>11</sup> states that of 145 offenders under 35 years of age committed to the reformatory and prisons, 87.5 per cent were native born and of the 87.5 per cent 64.5 per cent were of foreign born parentage, and then comes the emphasis on the conditions under which they lived.

In this matter of citizenship, important as is the lessening of delinquency and crime, the stimulus for good housing should get its

---

<sup>11</sup> *Op. cit.*



impetus from the sympathy that should be extended to those who, in each generation, are caught in an economic trap and who live out their hard-working lives in neighborhoods which no civilized community should allow to exist. It is impossible to gauge the loss of potential power that might be saved if those same persons could live in another type of environment—in an environment of convenience and of comfort with some elements of beauty.

Finally, there is a way to nourish citizenship. It is not the way of the slum.

### Housing and Education

The United States has pinned her faith upon her school systems and her institutions of higher learning. In connection with housing, the question arises: Is a child fully educable whose physical stamina is weakened by the conditions under which he is living or whose character is molded by the mesh of low-toned neighborhood influences known to exist in neglected communities which develop an ethical outlook of their own? There has undoubtedly been error in assuming that our schools were almost entirely effective, in and of themselves, in training abilities and outlook upon life, while the truth is that it is the entire surrounding circumstance of our experience that creates the check or the encouragement to personal effectiveness. The school, in other words, is not the supreme training ground—the church and the home and the complicated experiences of association, with the school, form the complete educational background of the individual.

The Committee on Socially Handicapped—Delinquency, of The White House Conference on Child Health and Protection made this statement:<sup>12</sup>

"The basic needs of a child, security and an opportunity to develop, can never be fully satisfied by his own home, his school, his church or industry. He needs group life, widening interests; he craves the adventure and the opportunities to act as an independent human being which are to be found in what we call *the community*. All children, privileged and underprivileged, take what the community has to offer. Adults make the community what it is. . . .

" . . . Through these, patterns are formed in the early years of childhood

<sup>12</sup> The Committee on Socially Handicapped—Delinquency, (White House Conference on Child Health and Protection), *The Delinquent Child*, New York, The Century Company, 1932, pp. 193, 194.

and youth which symbolize our morality, our integrity, our philosophy of life."

Clearly, then, in this complex matter of education, this Conference is concerned with its most important phase—namely, homes and their environment.

To return to the school: The school has the child under its control only a small proportion of the time. Every cent in every dollar expended for training is undercut or gains its objective in so far as other factors permit it to get its results. Every social worker can cite instance after instance of children who begin school with enthusiasm, find no opportunity for quiet study at home, drop back in their classes, become discontented, leave school. Moreover, the conditions of the too-crowded home, poor sleeping accommodations, the recreation of the street, take their toll of vitality from our children and young people.

Unless the housing in a community is such as to provide, with other facilities, adequate ventilation, sunlight, sanitation, and suitable sleeping rooms, it is justifiable to expect that the health in the school district will be more or less impaired. If this is so, housing has a bearing on education because regularity in attendance is affected by the health of pupils, while any lack of normal vitality and conditions of health below a good standard tend to reduce mental alertness and, therefore, retard scholarship.

Further, children cannot be expected to go forward as they should in the educational process unless they have some place at home in which to study which is comfortable, reasonably quiet, adequately lighted, heated, and ventilated, and also have a place where books and other materials can be kept. These facilities are impossible in thousands of homes.

Another point: During the last few years, educational methods have been criticized because the influences of the school do not grip the students. They are said not to apply what they are taught. Much of this has undoubtedly been unfair because the drag of local standards and habits has proved too much for the school, and always will when the variations between the neighborhood and the school are great.

Again, it must be emphasized that the ideals, standards, and personalities of boys and girls are influenced by their homes and

by the general community. Often, to appreciate fully a fine home, the understanding of a fine home must come within the range of experience. Where there is no standard of community housekeeping and beautification, what can be expected? The development of all that there is in appreciation of home life and of good housing is not alone the outgrowth of what is learned in school, but is an outgrowth of the observations of one's daily surroundings. Standards of cleanliness and sanitation are unavoidably influenced by the standards of one's environment. Most important, too, a pupil's conception of social standards and the amenities of life must of necessity be colored by situations in his own home.

This leads to a consideration of what our present conditions are, by way of forming the idea of home for the homemakers of tomorrow.

It is clear that since the beginning of the nineteenth century the industrial sections of the country have gone from bad to worse. The growth of congested areas in cities has carried with it most inhuman living conditions. New York, Chicago, Boston, Philadelphia, Pittsburgh—even Washington—have only to be studied to give force to this statement. The single-family house is in competition with the multiple dwelling. Home ownership is threatened and in sections of the country where formerly many single-family houses were lived in by their owners, a condition of tenantry exists. The home which should center the lives of its members is in danger of becoming entirely inadequate to meet this responsibility. The adolescent finds it impossible to entertain friends. There is no room. The man of the family goes to the corner shop, to the lodge, to the local political club to talk to his friends—away from the interruptions of his children. The woman also seeks her social life outside the home.

Under such circumstances, where does the school stand in teaching ideals of the home? If the instruction is in terms of the home, as it should be, and of the family circle as an entity, what will be the attitude of pupils living as they do today?

A pamphlet issued by the Michigan Housing Association states: <sup>13</sup>

---

<sup>13</sup> Herman, S. James, *Why Do You Live in an Apartment? A Study of a Sinister Trend in American Life*, Detroit, Michigan Housing Association, 1931, p. 5.

"The mushroom growth of apartments in practically all industrial centers has led to grave apprehension as to its ultimate effect upon American family life. Department of Labor statistics for the years 1921 to 1927, inclusive, show a growth in apartment construction of from 24.4 per cent of the total construction in 1921 to 48.3 per cent in 1927—an increase of nearly 100 per cent during the seven-year period. Construction of one-family dwellings, on the other hand, decreased from 58.3 per cent in 1921 to 38.3 per cent in 1927—a decrease of 34.3 per cent. The statistics for the year 1928 show a still greater percentage of growth in apartment construction. It is generally conceded that apartment life has a deleterious or even destructive effect upon American ideals and institutions, the basis for which has been the traditional integrity of the American home."

The statement is one of fear because of the change from the single dwelling to the multiple dwelling. Certainly the freedom of members of the family is more limited in the tenement and there is greater difficulty in keeping the family together and at the same time giving that privacy which every individual must have. Nevertheless, it is extreme to assert that family life will be broken by the type of the habitat alone.

How is education meeting these changing conditions and is our homemaking instruction adapting itself to the changed conditions? Is the supreme value of the personal forces of the family tie emphasized and are pupils made conscious of the lessened advantages to the point of instilling into the mind, searching inquiry as to this newer manner of living?

It is said that it is because the school children of Chicago have been brought up on Wacker's *Manual*, a handbook that describes the proposed development of the city by a plan, that Chicago can so easily obtain the funds through bond issues for the great layout of parks and public improvements for which it is famous. That is, a citizenry has been trained to understand the city plan for Chicago so that each step in the development of that plan receives ready support.

It is said that the home is based on economic security, health, an appreciation of the affectional basis, and the growth of human relationships that spring from the acceptance of local duties. Do courses of ethics and civics inspire pupils to the point of making them understand the values in community association and urge them to personally participate in building up home standards in the right community setting?

In teaching subjects that relate to the home, is too much em-

phasis placed upon home ownership and the single-family house, because for thousands home ownership is impossible and the building up of home values in rented dwellings and in the tenement has proved not to be an illusion if the tenement is worthy of being considered a home. Should not the benefits of home ownership and the single-family house be brought out and also the limitations of the single-family house if it is too small, ugly in design, and in an area where there is no community teamplay—where neighbors are not neighbors? In some cases the apartment may have certain advantages over single-family houses in which architectural design is poor and the layout of its neighborhood provides little by way of recreational or social opportunities.

Is home economics (domestic science, or homemaking) taught by a method so closely related to the young person's experience and so broadened in application that the next generation of "consumers" in this field can weigh and balance the advantages and disadvantages of different types of dwellings to meet their needs, and do the courses develop citizenship ideals?

Our pupils should know a good house when they see it. They should be able to judge of its construction, its convenience, suitability, and the quality of its design. They should be able to weigh and balance neighborhood advantages. They should understand taxation as it affects homes and should also understand the financing of the home. No graduate from our schools should be ignorant of these factors nor of the duty which each and every future citizen has to stabilize the advantages already gained in housing and to increase the spread of those advantages to every section of this country. By courses in schools and colleges, and by means of every educational approach to adults, an appreciation of the desirable home and its setting should be developed.

### Housing and Recreation

Serious results often occur when children can never play at home nor young people entertain their friends. So important is it that members of a family enjoy their home pleasures, guarded by that which makes for social control, that the question of housing must take into consideration the provisions for the playtime of children and the recreation of grown sons and daughters. Moreover, if leisure presents the balance to work and the offsetting re-

laxation to our modern stress, every man and woman should be able to receive from the community recreational opportunities that will maintain the tone of mind and body. It is for these reasons, very largely, that the tendency to live in cramped apartments in city blocks is looked at askance and it is for these reasons that every effort is being made in city planning to see that public playgrounds are within half a mile of every city home; that there shall be athletic fields within a fair walking distance and recreation centers either in school buildings or in buildings especially designed to meet the all-round leisure-time needs of the community.

It is in connection with the playtime of children that the slum is particularly dangerous. In the final analysis, it is not the plumbing, leaky roofs, or dark rooms which alone constitute the essential characteristics of the slum. It is all those factors plus the complete breakdown of what is termed community amenities. It has been a hard strain that has been placed upon children through the change from the single-family house, with its own yard, to the tenement with the street as the only open playspace.

Also, the lessening of neighborliness has taken away from the richness of adult life. The physical contact with one's neighborhood creates a great social force because through that contact the age-old forces of herd approval and disapproval find free play in the molding of character of both young and old, and also there is developed that basis for companionship which is most important.

Occasionally, here and there, in the congested areas of cities, one discovers unique examples of village relationships, as for instance in Pittsburgh, as described by Albert J. Kennedy in his study of the *Social Conditions of the 27th Ward of Pittsburgh, Pennsylvania*:

"One of the most striking objects in the area is a row of two-story houses which occupy most of the block bounded by Credo Way, Echert Street and Ketchum Street. The houses are two rooms deep, are set about a three-sided court which opens at the Echert Street end. Within the court, benches are placed against the walls of the houses under the windows. . . . In warm weather, the families sit upon the kitchen steps while the children play about in the court. Here it seems as though the life of a Russian village were being reproduced before me, the scene has in it so much of the old world. One catches glimpses of flowers in the kitchen windows, and some windows are draped with lace or needlework having elements of beauty. There is something inherently village-like and wholesome about the court and its houses."

By some method, in cities, this sort of thing must be salvaged, and, where it does not exist, developed.

Fortunately, at the present time, the home and its surroundings are being considered from the angle of meeting the inherent desire for the advantages of association and for recreational opportunities, as exemplified in the new town of Radburn, New Jersey, which has been promoted by the City Housing Corporation of New York City, which is a limited dividend corporation. The area of the land which has been developed is 1,250 acres. The houses are attractive. There are special traffic routes and the walks are so arranged as to protect those who live in Radburn from motors. All children are able to reach school without crossing a motor highway. Green surrounds the houses. An interior park is provided in the center of the superblocks. There are special playfields for baseball and football connected with each elementary school. A swimming pool—90 feet by 30 feet—is provided in the first section now being developed. The ultimate acreage devoted to interior parks and playgrounds will be over 100 acres. Also, community clubrooms and an auditorium are provided by the promoting company in a community building.

Another development now under construction, by the Buhl Foundation in Pittsburgh, plans for the housing of three hundred families. Natural slopes have been utilized to achieve distinctive and pleasing designs, for both individual dwellings and the entire community. All dwellings are to be so arranged as to give maximum privacy and convenience for each family, also, playspace and gardens are located strategically. Less than one-third of the ground area is being built upon. Motor-vehicle routes do not cross through the development, insuring safety for children when passing from dwellings to play areas. One of the distinctive features is that no house will be sold but all will be rented at a minimum economic rental. The entire development will be owned and managed by the Buhl Foundation.

Certainly, comprehensive real estate developments alone are able to develop a rich community environment. The manner in which large residential developments create the face-to-face social relations can be briefly indicated. In the first place, such a development tends to bring together more or less homogeneous groups. To the extent that it provides common facilities for them, of a

residential character that they desire to preserve, occasions arise when the various families are brought into personal contact. In the course of such meetings congenial acquaintanceships are formed. Numerous societies and voluntary associations come into existence. Thus, the community mesh gradually develops. In evidence of this fact, many cases might be cited. Whether one examines the Country Club District near Kansas City, Missouri; Kohler, Wisconsin; Radburn, New Jersey; or such New York developments as Forest Hills Gardens, Jackson Heights, and Sunnyside Gardens, one finds in every case a rich community life that has its roots deep down in the original plan.

It is a well-known fact that many suburban developments show a decided community character from the very beginning. Being surrounded by open country, such settlements have distinct boundaries which help to create a community consciousness among the residents. Oftentimes the common need of getting a school, sidewalks, or some other local improvement brings the residents together in a voluntary association. Local acquaintanceship becomes general. The rising generation is molded by the mores and standards of the neighborhood in the traditional manner. When, however, the waves of new housing have come up to the development on all sides and erased its boundaries, and the satisfaction of the local public utility needs has removed the necessity for concerted action, then the local associations have faded away, and this community environment has been dissipated.

It is evident that the amount of community character exhibited by a residential district and the durability of that quality are both dependent upon its distinctness as a physical entity of the city and upon the efficiency with which its various functions are adjusted to the requirements of the residents. An harmonious relationship between all the parts of a neighborhood can better be obtained if it is constructed in accordance with a preconceived plan. Such a plan—or rather scheme of arrangement—was worked out by the Regional Plan of New York and Its Environs and is fully described in its report.<sup>14</sup>

This scheme bears the label of "neighborhood unit" and it lays

---

<sup>14</sup> See Committee on Regional Plan of New York and Its Environs "Neighborhood and Community Planning," *Regional Survey of New York and Its Environs*, New York, The Committee, 1929, Vol. VII. (Monograph One, Perry, Clarence A.) pp. 34-35.



down six principles as basic in the planning of an urban neighborhood community:

1. It should be the size of an elementary school district.
2. It should be bounded by arterial highways.
3. It should have a system of small parks and playgrounds planned for its peculiar needs.
4. Its school and other institutions should be grouped around a central open space.
5. It should have one or more retail shopping areas located in its periphery at traffic junctions.
6. It should have a special internal street system fashioned so as to promote the safety and convenience of residents and discourage the intrusion of through traffic.

It requires little imagination to realize how completely residential developments built upon the above lines would promote a local community life. From the point of view only of street safety, there would be a tremendous gain in a district where all the families could reach schools, playgrounds and stores without having to cross a main highway. In such a district, both the street system itself and local regulations would cooperate in inducing cautious driving within the confines of the neighborhood.

Most important of all, such an environment affords the conditions under which citizens have long been accustomed voluntarily to work together to promote their own interests and realize their individual capacities. In the neighborhood community, delinquency is lessened, character is strengthened, individual skills are whetted by friendly rivalry, the school is supplemented by cultural groupings, recreational opportunity is more richly provided and the rising generation is afforded a normal apprenticeship in the practices of civic life. Every objective cherished by leaders in social progress is forwarded, in one way or another, when the local community is promoted.

There is stirring in the country a renewed appreciation that city planning, zoning and housing—for the three must go hand in hand—may be the way out of certain civic and social problems that are acute. It is coming to be understood that, as long as houses unfit for dwellings exist, people will live in them; also, that the housing problem cannot be solved by leaps and bounds, or in a short period of time, but by gradual steps; that dwellings existing in slum areas must be studied, with the thought toward recondi-

tioning and making fit those houses worth the investment; that legislation, setting minimum standards for existing and proposed housing, should be adopted and enforced by every community. As a result, housing associations, such as those in Cincinnati, Pittsburgh, and Philadelphia, and state associations as those in Michigan, and Pennsylvania, are working with private and public agencies for the cause of housing improvement. Also, official city planning departments in many cities are fast beginning to be established as a function of government. Such efforts as well as those of some voluntary city planning groups, are improving present conditions and preventing property waste and haphazard growth so common in the past.

This seems to imply that a new era in community life is dawning. Not only are evils to be combated but positive and progressive aims are in view. If this is so, there can be but one result—namely—a superior race of men.

### Summary

Every study that has been made in recent years points out that human conduct is largely a product of the interaction of the forces of personality and environment. Clearly, there can never be a sound citizenry unless men are given every reasonable opportunity under decent living conditions. Therefore, the slums and underprivileged areas in cities and in rural sections must be replaced by habitable districts.

Juvenile delinquency statistics, as well as those which have to do with higher crime, point to the slum as a breeding ground. Also, in the blighted sections of cities, the most degenerate forces of political organizations are found to exist where conditions are such that the physical, mental and moral stamina of a large proportion of the population is endangered, whose conditions are, by virtue of these influences, undercutting every civic institution and every constructive effort for well-being. The higher values of a progressive society can never emerge unless society is sound at the core. The family, the church, the school are impotent to make up for the corrosive effects of bad housing in disintegrating communities.

Community conditions are now recognized as being so important in the molding of childhood and in their influence upon the

adult, that the home and the community must be definitely considered as acting and reacting the one upon the other.

Moreover, questions of housing and the community rest upon an economic background. Is the way out to be by private initiative, on a limited dividend basis, by indirect government subsidy by way of tax leeway, or by government housing as in England?

Further, the multiple dwelling is on the increase. Is this to be checked or encouraged if multiple dwellings carry with them the advantage of the Amalgamated Housing Corporation blocks in the Bronx in New York, or the recently constructed Grand Street apartments in the Lower East Side, or the unit erected by John D. Rockefeller, Jr., in New York, or the Brooklyn "garden homes"?

It is important to note that the increase in multiple dwellings is not characteristic of the larger cities alone but of some smaller cities. To be didactic in the question of the personal, social, and civic advantages of the single-family house *versus* the multiple dwelling would be unwise at this time, because we do not know enough to be positive as to which is the better. Certain it is, however, that the ideal of the average American is home ownership of a single-family house. Home ownership tends to root citizenship, to build a man and his family into the community. This is brought out by the Michigan Housing Association in its study:<sup>15</sup>

"Apartment life is not the choice but the 'only' choice of the vast majority of those occupying apartments. p. 12.

"... The trend towards apartment life is largely due to economic stress and is not a matter of choice, and if detached single dwellings with modern equipment were available either for rent or purchase, at a monthly cost not exceeding the rent of the apartments, the vast majority would choose the single dwelling." p. 13.

This statement is the result of a study of some 2,400 families.

If the single-family dwelling is more advantageous than the multiple dwelling, then effort should be made to multiply such developments as those at Sunnyside and at Radburn.

As to the wage earners whose incomes range between \$1,800 and \$2,000—is there hope for them? Will the same assistance be given them in terms of the single-family house that has been given them in the apartments in New York? Of one thing we are certain,

---

<sup>15</sup> Herman, S. James, *op. cit.*

and that is, that whether a district be one of apartments or single-family houses, recreational facilities must not be neglected nor the weaving of neighborhood ties. Children and adults must both have the recreational advantages peculiar to their needs. For children—playspace. For those who are older,—athletic opportunities and the civic, handicraft, musical, dramatic and educational programs of the recreation center.

So important is the acceptance of the goal that every citizen of these United States should have as a background a home in a neighborhood where there is beauty, convenience, and social opportunity; that somewhere in the education of every boy and girl stress should be laid on the essentials of good housing, home ownership and its financing and management, city planning and zoning.

### Recommendations

1. That there shall be a determined effort under a city planning and zoning board to eliminate blighted areas in every city and town in the United States.

2. That permanent city planning commissions shall be appointed, having as one of their functions the work of defining on maps, in connection with master street plans, the boundaries of districts which may be planned comprehensively as neighborhood residential developments.

3. That in secondary blighted areas, plans for reconditioning be worked out in order to prevent further development of slums.

4. That a model act be formulated that may serve as basis for state legislation which will make it legally and practically possible to assemble, at reasonable cost, tracts of land sufficiently large to permit their development in accordance with the pattern of neighborhood communities.

5. That there shall be definite instruction given throughout the school system of the United States in the essentials of good housing, and the building and the financing of homes.

6. That in the development of housing plans in cities, towns, and rural districts, considerations of design, beauty of land layout, and adequate recreational facilities to meet the needs of young and old, from the point of view of playgrounds, athletic facilities and indoor leisure-time needs, be worked out.

## APPENDIX I

(AN APPENDIX TO CHAPTER II, "HOUSING AND DELINQUENCY")

### CRIME CAUSATION AND HOUSING

TOPICAL, ANNOTATED, BIBLIOGRAPHICAL DIGEST OF SELECTED AND  
EVALUATED RECENT MATERIALS ON CRIME CAUSATION <sup>1</sup>

#### CONTENTS

	<i>Passages</i>	<i>Pages</i>
Introductory .....		106
I. Concept of Causation in the Social Sciences—		
Methodology .....	1-31	108-120
A. Complexity of Causation—No Single Factor..	1-20	
B. Interplay—Internal and External Factors—		
Heredity and Environment .....	21-28	
C. Difficulties of Evaluating Factors—Lack of		
Norms or Comparative Standards.....	29-31	
II. General Social Aspects.....	32-55	120-129
A. Fundamental Societal Forces and Standards..	32-34	
B. Cultural Patterns, Conflicts and Changes....	35-49	
C. Nationality or Race and Crime.....	50-52	
D. General Economic Conditions and Crime....	53-55	
III. Environmental Aspects .....	56-194	129-185
A. City as Setting for Crime.....	56-68	
1. City Environment .....	56-59	
2. City Dynamics—Growth and Change....	60-68	
B. Neighborhoods, Areas or Districts.....	69-93	
C. Home as Setting for Crime.....	94-173	
1. Physical Basis—Bad Housing.....	94-135	
2. Broken Homes—Psychologic Basis.....	136-156	
3. Economic Condition of Home.....	157-173	
D. Elements Extraneous to Home.....	174-194	
1. Bad Companionships—Gang Membership..	174-179	
2. Use of Leisure—Recreation.....	180-194	
IV. Individual Aspects .....	195-224	185-195
A. Inner Urges, Desires or Inherited Tendencies	195-200	
B. Individual Variations or Reactions....	201-204	
C. Mental Deficiency or Disease as a Factor....	205-211	
D. Physical or Organic Defects, or Abnormality	212-224	
V. Some Conclusions .....	225-235	195-198
A. Difficulties of Isolating One Factor from Sev-		
eral Others .....	225-231	
B. Paucity of Data and Research Relative to		
Housing and the Problem of Causation....	232	
C. Housing One Factor in Vicious Circle.....	233-234	
D. Some Needs Evidenced by this Selected		
Bibliography .....	235	
Bibliographical Index .....		199-200

<sup>1</sup> Prepared under the direction of Sheldon Glueck by J. M. Master, assisted by George E. Lodgen, Everett A. Golway, and George N. Riseman.

### Introductory

Although the primary interest of this appendix lies in the relationship of housing to crime, it has been deemed necessary to widen the horizons of the following bibliography. The quite obvious interrelationship between housing and physical, psychological, economic, cultural, and other important factors, more or less intimately related to vice and crime, necessitated an *a priori* determination of the materials to be selected. It is essential, therefore, that a few words be said regarding the sources as well as the methods of procedure followed. Several initial attempts at classification of desired data finally resulted in the following topical alignment as a guide in the selection of the materials to be included:

#### **Housing:**

All references to the relationship between housing and crime.

#### **Home factors:**

Family situations, relationships, limitations, and conflicts; economic status of the family; social and cultural forces within the home.

#### **Economic and environmental factors outside the home:**

Unemployment; child labor; recreation; neighborhoods; crime areas; community disorganization; gangs; urban-rural crime, etc.

#### **Other social, cultural, and racial factors outside the home.**

#### **Hereditary factors.**

#### **Uncertain classification:**

All pertinent materials of such nature that proper classification under any one of the above groupings was questionable.

This study being stimulated by the housing problem, the materials included stress sociological contributions unduly to the detriment of biologic, psychologic, psychiatric, etc. It is believed, nevertheless, that the chief recent materials of the latter kind are included in this digest.

Having accepted the above guide for selection, the next problem to be considered was the construction of an extensive bibliography of recent materials on crime and on the concept of criminal causation. To facilitate this phase of the work, recourse was had to Kuhlman's *Guide to Material on Crime and Criminal Justice*, supplemented by publications listed under *crime* and *housing* in the catalogue index of the Widener Memorial Library, Harvard

University, and in *Social Science Abstracts*. As Kuhlman included materials up to the year 1926 only, the several periodical indices were scanned for more recent references.

The bibliography completed, the next step was to examine the contents of each book and article listed. It was decided, because of considerations of time, to include only the more recent material, on the whole from 1900 to the end of 1931. Each book and article was scanned for data pertinent to our problem. Each was judged on the basic data, sources, and method underlying the contribution. Only those contributions rated "A" (excellent), "B" (good), and "C" (fair) were retained, those falling below "C" being discarded at once. Due to the pressure of time and the vast amount of material to be digested, some allowance should be made for possible oversight. The following form card data were filled in for each article or book rating "C" or higher:

Author:	Title:	
Publisher:		
Material Based On:		
Quality of Contribution:	Rate:	Remarks:
Descriptive Résumé:		
Quoted Conclusion:		

After evaluation of all the references contained in the bibliographical list, it was necessary to organize and present properly the selected references. This step involved passing judgment on the relative importance, proper sequence, and weight of the numerous factors considered by various writers to be causative of delinquency and crime. This further refinement of the selected material was essential, due to the fact that many contributions were, on closer scrutiny, found to contain too many vague generalizations. Of the vast number of extracts initially selected, only 235 have been included.

The outline as shown in "Contents," after some consideration, was decided to be most suitable for our purpose, and the retained references are herein arranged in the same order. Naturally, many of the items overlap several classifications and differences of opinion as to categorization may therefore legitimately be expected. Any classification of complex social factors is bound to do some violence to reality. The classification should, therefore, be regarded as only a device for the convenience of a rough organization of the materials.

The outline, in itself, clearly indicates the complexity of the problem of crime causation, the interrelationship of the numerous aspects of the problem, and the place of housing in the general field.

Quotations from, or abstracts of, the selected books and articles are arranged under the outline headings. The first time a quotation or abstract occurs the name of the author and the title of the contribution are given; when it is later classified under a different topic, it is not duplicated (unless quotations from more than one work by the same author appear), but the reader is referred by *op. cit.* or *ibid.* to the original citation.

## I. Concept of Causation in the Social Sciences— Methodology

### A. Complexity of Causation—No Single Factor

1. "The social life cannot be interpreted in terms of any one of its phases or in terms of a single set of causes, but can only be properly interpreted by a synthetic view which shall take into account all the different factors actually found in the social life process." pp. 40-41.<sup>2</sup>

"The economic factor is only one among other stimuli which may or may not occasion response, or rather, we should say, may or may not occasion a particular kind of response. What response shall be made depends upon a variety of circumstances; for instance, upon the hereditary equipment and upon the acquired habits of the individual. The condition of the organism further, whether healthy or unhealthy, may go a long way toward determining the particular kind of response."<sup>3</sup>

\* \* \* \* \*

2. "What is the connection, if any, between the delinquencies of the selected group of children studied and their spare-time activities?

"The first answer to this question is the negative one that the facts do not show any condition—personal, family, economic, or

<sup>2</sup> Ellwood, C. A., "Marx's Economic Determinism in the Light of Modern Psychology," *American Journal of Sociology*, Vol. 17, pp. 35-46.

<sup>3</sup> Gault, R. H., a review of Ellwood's article cited above, *Journal of Criminal Law and Criminology*, 1911-12, Vol. II, p. 643.



social—to be the sole factor in delinquency. There is delinquency of both sexes; of graded ages; of all census varieties of birthplace and nationality; in broken and unbroken homes; among poor children and well-to-do children; among Catholics, Protestants, Jews, and those of no religion; among children in congested centers and in good residence districts.”<sup>4</sup>

\* \* \* \* \*

3. “Sociologists, backed by statisticians, have found causal relations between nearly every kind of social condition and crime. Poverty, insanity, housing, overcrowding, ignorance, idleness, density of population, unemployment—these and a host of others have been set down as causes of crime because the commission of criminal acts has in some way been shown to be related to them.”<sup>5</sup>

\* \* \* \* \*

4. “Whether or not they become delinquent will depend, not so much upon the appearance of a single decisive factor, as upon the massing of factors in such a way as to disturb a more or less unstable initial adjustment. That certain factors, notably poor economic conditions, variously operative, and inferior intelligence, are particularly likely so to disturb the balance is the main point which we should urge in emphasizing these conditions.”<sup>6</sup>

\* \* \* \* \*

5. “The trivial manner in which the assumption of matrimonial duties and responsibilities is regarded by couples entering the marriage contract, the evil of divorce, desertion on the part of a mother or father, the hectic pursuit of artificial pleasures and other forms of stimulation, and mad rush attendant upon the making of dollars and other nerve-racking phases of American commercial life, the degeneration of our ideals, the entrance of women into

<sup>4</sup>Thurston, H. W., *Delinquency and Spare Time*, Cleveland, The Survey Committee of the Cleveland Foundation, 1918, p. 110. (Study based on 95 consecutive juvenile court cases.)

<sup>5</sup>Wines, F. H., *Punishment and Reformation* (revised by Lane, W. D.) (1919) edition, New York, Thomas Y. Crowell Company, p. 415. (Text-book based on critical examination of articles and reports on the subject.)

<sup>6</sup>Fernald, Hayes, Dawley, *et al.*, *Study of Women Delinquents in New York State*, New York, The Century Company, 1920, p. 528. (Individual case studies of following groups: State Reformatory for Women, Bedford Hills, N. Y.; State Prison for Women, Auburn, N. Y.; New York Magdalen Home; New York County Penitentiary; New York City Workhouse; group of women on probation through Women's Night Court.)

spheres of activity formerly filled by men, alcoholism, poverty—these are among the leading enemies of the American home to-day. . . . Although miserable living conditions and similar influences still produce their regular quotas of criminals, it is the degeneracy of American home life generally which is now bringing forth a great number of offenders against the laws of society.”<sup>7</sup>

\* \* \* \* \*

6. “While unfavorable community conditions and practices are very important immediate factors in juvenile delinquency, home conditions and practices must be considered as fundamental factors which lay the basis for the child’s physical, mental, and moral resistance to such unfavorable community conditions. It is much more difficult to measure the influence of home conditions on juvenile delinquency, because these conditions are not so obvious, they are more complex, they are often apparently remote from the specific act of delinquency, and they are not so well understood.”<sup>8</sup>

\* \* \* \* \*

7. “What did we find? . . . that the answer to the question why girls were sex delinquents lay primarily not in any hereditary, environmental, physical or mental factors, any or all of which might be practically the same for their brothers and sisters who were not conduct problems, but that the answers were as varied as the girls themselves and must be found in the *girls’ own individual make-ups which reacted to conditions and circumstances in ways peculiar to themselves.*” p. 494.

“Environment unquestionably exerts such tremendous influence on the personality in helping to shape standards and color ideas that we regard a knowledge of this background as essential in understanding any person who is a social problem.” p. 505.<sup>9</sup>

<sup>7</sup> Gault, R. H., “Report of the Committee on Origin of Crime,” *Second Annual Report of the Chicago Crime Commission*, 1921, p. 29. (Conclusions from general statistics and literature on crime—specific basis, convictions for felonies in Chicago, 1917, 1918, 1919.)

<sup>8</sup> Edmondson, E. H., “Juvenile Delinquency and Adult Crime,” *Indiana University Studies*, Study No. 49, Bloomington, Ind., 1921, Vol. VIII, p. 60. (Certain associations of juvenile delinquency and adult crime in Gary, Ind., with special reference to the immigrant population. Examination of crime statistics and factors in Gary, Ind.)

<sup>9</sup> Bingham, A. T., “Determinants of Sex Delinquency in Adolescent Girls,” *Journal of Criminal Law and Criminology*, 1922-23, Vol. XIII. (An analysis of 500 adolescent girls with sex experience, studied over a period of five years. Work of New York Probation and Protective Association. Study of Waverley House group of delinquent girls.)

8. "It is impossible, therefore, to isolate the home as a factor, either from the constitutional equipment of the child or from the other institutions of the community."<sup>10</sup>

\* \* \* \* \*

9. "The study of the child's environment does not end with the study of his home. Already, in reviewing the local prevalence of youthful crime, we have seen reason to infer that the character of the street and neighborhood in which the child lives may be quite as significant as the conditions inside his house or lodging. Influences that affect him beyond the circle of his family life may at times be the sole factors in his delinquency. As a rule such influences are harder to ascertain, more frequently overlooked, yet often in the end the easier to cope with. They fall into three main groups: First, those connected with the child's daily work, whether at school or at business; secondly, those connected with his leisure hours; and, thirdly, those exercised by the companions he meets and the friends he forms, whether schoolfellows, work-fellows, or playfellows. Of the three the last are the most powerful and are the first to need consideration."<sup>11</sup>

\* \* \* \* \*

10. "Crime, no less, is the outcome of many confluent. . . . In all, more than 170 distinct conditions have been encountered, every one of them conducive to childish misconduct." p. 575.

"Judged by the coefficients, the following proves to be the order of importance of the various conditions we have reviewed:

(1) defective discipline; (2) specific instincts; (3) general emotional instability; (4) morbid emotional conditions, mild rather than grave, generating or generated by so-called complexes; (5) a family history of vice or crime; (6) intellectual disabilities, such as backwardness or dullness; (7) detrimental interests, such as a passion for adventure, for the cinema, or for some particular person, together with a lack of any uplifting pursuits;

<sup>10</sup> Sutherland, E. H., *Criminology*, Chicago, J. B. Lippincott Company, 1924, p. 139. (Textbook summarizing major findings regarding crime, its causation, treatment and prevention.)

<sup>11</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, p. 123. (Thorough case study of 197 tabulated (200) juvenile delinquents compared to a control group of 200 school children in London. Material based on statistics, but fails to show method of obtaining figures. Apparently, however, careful and thorough work. Correlates (rank method) percentage of juvenile delinquency in London (various boroughs) with overcrowding, poor relief, poverty, etc. Highest correlation with overcrowding 0.77.)

(8) developmental conditions, such as adolescence or precocity in growth; (9) a family history of intellectual weakness; (10) defective family relationships—the absence of a father, the presence of a stepmother; (11) influences operating outside the home—as bad street companions and lack of or access to facilities for amusement; (12) a family history of temperamental disorder—of insanity or the like; (13) a family history of physical weakness; (14) poverty and its concomitants; and, last of all, (15) physical infirmity or weakness in the child himself.” pp. 581-2.<sup>12</sup>

\* \* \* \* \*

11. “Nevertheless, no adequate statistical studies of the causes of crime which properly isolate housing factors are available at this time. Nor does it seem probable that housing factors can be sufficiently isolated from other environmental factors, or from conditions of family life, moral training, and the mental and emotional make-up of the individual, to make such a study convincing.”<sup>13</sup>

\* \* \* \* \*

12. “The influence of home conditions, as distinguished from housing factors, is easily demonstrated from case histories, and ably elaborated in the book by Breckinridge and Abbott on the *Delinquent Child and the Home*. But as might be expected, in all the many cases described in which undesirable housing conditions were found, such as overcrowding, the lodger problem, defective sanitation, and poor standards of maintenance, there are other factors of home life which might be sufficient in themselves to account for the delinquency. We are not sure, in any given case, whether bad housing conditions caused or resulted from these other factors.”<sup>14</sup>

\* \* \* \* \*

13. “To view the home in isolation from the individual, to deal with environment as a thing apart, to picture its bad effects as an external deposit which may stick for a while, but can be easily wiped away from the surface, becomes utterly fallacious. Some natures remain unsoiled though sunk for years in mud; others are porous and penetrable; and the grime works into the grain. It is the personal reaction to a given situation that makes a man

<sup>12</sup> *Ibid.*

<sup>13</sup> Ford, J., “Improved Housing as a Means of Crime Prevention,” *Annals of the American Academy of Social and Political Science*, May, 1926, p. 177.

<sup>14</sup> *Ibid.*

a criminal, not the situation itself. It is not bad surroundings alone that create delinquency, but the workings of these bad surroundings on the thoughts and feelings of a susceptible mind.”<sup>15</sup>

\* \* \* \* \*

14. “Hence there is a conspiracy of conditions which account for his becoming a criminal—conditions in his own constitutional make-up, in his early social development, in his lack of training, in his poverty and in the surrounding social atmosphere, including habits, customs, ideals, beliefs, and practices. The social conditions around him set the stage on which each of these factors plays its part and release in his conduct the good or the evil in his nature. Thus is the criminal made.”<sup>16</sup>

\* \* \* \* \*

15. “Certain developments in the early stages of criminal science tended to fix the idea of a single factor in criminal causation. This was conceived of as within or without the person of the offender, giving rise to the hereditary and environmental schools. Under the influence of the developing mental sciences of psychology and psychiatry, the point of interest in causation began shifting from anatomy to the mind. The development of scientific social work and the modern ‘clinic’ have made it possible to understand the interplay of internal and external influences. In spite of the philosophy of the environmentalists and the very great influence of much of what has been called social work, there is a definite swing away from general theories of causation toward the isolation of specific causes in individual cases of criminality.”<sup>17</sup>

\* \* \* \* \*

16. “Motives of delinquency in this class of criminals go back to infancy, and can be traced to their shattered childhood, to the absence of proper adjustment, to the defects in our understanding of the biology of social life, of family life, of individual life. It is futile to attempt to find the motives of delinquency in the act or offense of the individual concerned. We must pause and look at the individual as a social unit, as a product of the social organ-

<sup>15</sup> Burt, C., *op. cit.*, p. 179.

<sup>16</sup> Gillin, J. L., *Criminology and Penology*, New York, The Century Company, 1926, pp. 250-51. (Textbook based largely on American literature. Contains case history illustrations.)

<sup>17</sup> Parsons, P. A., *Crime and the Criminal*, New York, Alfred A. Knopf, Inc., 1926, p. 66. (Review of literature on the general field of criminology.)

ization, as a product not only of the union of two different cells, but also as a product of the environment.”<sup>18</sup>

\* \* \* \* \*

17. “The fallacy of attributing juvenile delinquency to heredity alone, physical or mental defect in itself, racial characteristics or home conditions such as overcrowding, economic stress, inadequate discipline and supervision, disharmony in the home, the broken home and socially defective tendencies is obvious and is borne out by a detailed study of the boy’s relation to each of these various influences. The study of juvenile delinquency shows that it is the result of the interaction of many complicated factors.”<sup>19</sup>

\* \* \* \* \*

18. “The soundest approach to the problem of the causation of crime therefore lies through a study of the individual criminal in relation to all the social and environmental factors which have an influence upon his personality. Such study considers the delinquent or criminal as an individual, but also as a member of many social groups, the family, the community, his play group, etc., each of which has provided him with the attitudes and values with which he faces the outside world.”<sup>20</sup>

\* \* \* \* \*

19. “It is in considering the social, economic, and political factors in crime causation that one is frequently confronted with the fact that the things which are considered as contributing to crime are merely the effects of larger and more fundamental causes. To explore these causes adequately demands a thoroughgoing examination of the criminal situation in the light of the social, political, and economic development of the country. This kind of an examination has unfortunately not been made, and one can merely speculate upon the effect upon crime of urban concentra-

---

<sup>18</sup> Grimberg, L., *Emotion and Delinquency*, New York. Brentano’s, 1928, p. 101. (Clinical study of 500 criminals in the making from the standpoint (clinical) of a neuro-psychiatrist.)

<sup>19</sup> Caldwell, M. G., “Home Conditions of Institutional Delinquent Boys in Wisconsin,” *Social Forces*, March, 1930, Vol. VIII, p. 390. (Examination and interpretation of Lumpkin’s study of 252 delinquents in Wisconsin, also a companion study of boy delinquents made by the author.)

<sup>20</sup> Ploscowe, M., “Some Causative Factors in Criminality,” *Report on Causes of Crime* (Report No. 13, Vol. I), National Commission on Law Observance and Enforcement, Washington, U. S. Government Printing Office, 1931, p. 17. (Critical review of available literature on the subject.)

tion, an industrial and acquisitive civilization, multiplication of contacts through rapid communication and transportation, the apparent inefficiency of democratic government to cope with modern problems, a long tradition of lawlessness, a long history of violence, etc." <sup>21</sup>

\* \* \* \* \*

20. "Students of the problem of juvenile delinquency and adult crime agree that a large proportion of youthful criminals are initiated into delinquency during the early years of life. Case histories indicate that in many cases the delinquent behavior of inmates of penal institutions, particularly those convicted on charges of stealing, can be traced back to experiences which occurred in the period of childhood and early adolescence. It appears from these cases that the habits and attitudes involved in criminal behavior are formed in the course of the successive social experiences of the individual. They are a product of growth and development, a process of summation, which has its origin in the process of interaction between the individual and the situation to which he is responsive. Viewed from this standpoint, a delinquent act is part of a dynamic life process, which can be understood only in relation to the sequence of experiences of which it is a part." <sup>22</sup>

#### B. Interplay—Internal and External Factors—Heredity and Environment

21. "The phenomenon of criminality has many points of contact with degeneration. As degeneration represents the struggle between the individual and the physical and social environment for the preservation of the individual, so crime represents man struggling against the factors which support order and the progress of societies. Criminal predisposition overlaps degenerative predisposition, the two varying only in degree and manifestations. Each

<sup>21</sup> *Ibid.*, pp. 140-41.

<sup>22</sup> Shaw, C. R., and McKay, H. D., "Social Factors in Juvenile Delinquency," *Report on the Causes of Crime* (Report No. 13, Vol. II), National Commission on Law Observance and Enforcement, Washington, U. S. Government Printing Office, 1931, p. 347. (Inquiry into the social influences that account for the formation of criminal habits and delinquent careers by the head of the Department of Research Sociology and the associate research criminologists of the Institute for Juvenile Research and Behavior Research Fund of Chicago. Examination of the literature on this subject, and a study of 7,278 boys.)

degenerative state presupposes a certain dose of predisposition and of casual intervention; so each crime reveals factors that belong to the individual and influences coming from environment." <sup>23</sup>

\* \* \* \* \*

22. "Unfortunately, however, these two conditions—defective native endowment and defective environment—too often occur together. In this case the probability of delinquency is doubled. There is much to be done in the improvement of the nurture of growing boys and girls to prevent the development of their potentialities for unsocial conduct. This is especially necessary for those who by nature are most likely to become victims of their environment.

"The study of delinquency indicates, as has been repeatedly shown in the case of other problems, that in nature and nurture, not separately, but collectively, must we look for an improved social being." <sup>24</sup>

\* \* \* \* \*

23. "Undoubtedly many criminal careers are due less to inherent biological defects in make-up than to the repeated exposure throughout life to unfavorable environmental and developmental conditions, forming in this way many of the character traits and personality difficulties so commonly responsible for delinquent behavior." <sup>25</sup>

\* \* \* \* \*

24. "It is not easy, as we have already indicated, to define the precise relationship between mental defect and criminal behavior in every instance, but the evidence tends to be cumulative that, inasmuch as criminal behavior is the resultant of the interaction between a particularly constituted individual and a particular environment, environmental factors play a significant role in determining criminal behavior in the defective. This general opinion may be

---

<sup>23</sup> DeQuiros, C. B., *Modern Theories of Criminality*, (Criminal Science Series), Boston, Little, Brown and Company, 1911, p. 47. (A critical review of Continental criminological literature with a Lombrosian orientation.)

<sup>24</sup> Williams, J. H., "Heredity and Juvenile Delinquency," *Eugenics Review*, April, 1917, Vol. IX, pp. 30-31. (A preliminary study of 12 families.)

<sup>25</sup> Anderson, V. V., "Mental Disease and Delinquency," *Mental Hygiene*, April, 1919, p. 185. (A report of a special committee of the New York State Commission of Prisons, whose investigation was based upon the testimony of judges, medical experts, psychiatrists, and others; statistics of mental examinations of prisoners and delinquents.)



expressed with reference to all the psychopathologically classifiable types." <sup>26</sup>

\* \* \* \* \*

25. "Moreover, the child, more than the adult, is subject to direct and continuous influences from his environment over which he has little or no control, and naturally depends for much of his training and guidance upon imitation of the attitude and behaviour of the adults who surround him. But the importance of environment for the life of the child is not exhausted by the circumstance that it furnishes so much of the child's daily stimulus and pattern for behavior. Its importance is enhanced by the fact that childhood imposes serious limitations upon outlet and response to the situations and problems created for the child by his environment." <sup>27</sup>

\* \* \* \* \*

26. "Workers in the fields of criminology and delinquency have generally investigated either constitutional factors or environmental factors, but relatively few have taken a socio-psychological attitude toward the problem of delinquency. Most of these workers have laid too much emphasis on one approach only and not sufficient emphasis on both approaches to the problem. Their failure to coordinately consider both the constitutional and environmental factors and to ascertain the interrelation between these two sets of factors themselves has led to disproportionate assertions as to the relative importance of these elements and resulted in so-called schools of criminology." <sup>28</sup>

\* \* \* \* \*

27. "Given an individual endowed with little moral resistance and little incipient strength of character and subjected solely to

---

<sup>26</sup> Glueck, B., "A Study of 608 Admissions to Sing Sing Prison," *Mental Hygiene*, 1918, Vol. II, p. 90. (Results of psychiatric and psychological examination of prisoners at Sing Sing; a pioneer study. Report of activities of Psychiatric Clinic at this prison from the time of its establishment, August 1, 1916, to April 30, 1917. Dr. Glueck, director of the clinic, was formerly head of the Department of Criminal Insane, Government Hospital for the Insane.)

<sup>27</sup> Glueck, B., "Constructive Possibilities for a Mental Hygiene of Childhood," *Mental Hygiene*, July, 1924, p. 655. (Conclusions by a well-known psychiatrist of wide, varied experience in both psychiatry and criminology.)

<sup>28</sup> Slawson, J., *The Delinquent Boy*, Boston, Richard G. Badger, Gorham Press, 1926, p. 350. (Data obtained at four institutions for delinquent boys in New York State. Three years of work devoted to the study. Comparison made with New York City school children.)

the untoward environmental influences recited heretofore, it should not surprise us if he turns to immorality, disorder, and crime in exactly the same manner that a well-born and well-protected individual expresses himself in the performance of irreproachable acts.

"Undisciplined, poverty-stricken, broken, or vicious homes, detrimental interests in life, generated by these factors or by developmental conditions such as arise during adolescence or are acquired from companions in the street—these are elements predominantly present in and lending form with color to the delinquent picture which life paints on the canvas of such inherited factors as emotional morbidity and instability, intellectual disabilities, physical weaknesses, or overcharged instincts." <sup>29</sup>

\* \* \* \* \*

28. "‘From the cumulative evidence of our analysis, we are persuaded that heredity, circumstances of development and of environment, physical and mental condition when abnormal, act as causative factors in sexual delinquency by reducing the power of individual resistance, by favoring the formation of faulty habits and low personal standards, and by failing to promote the establishment of sturdy inhibitions, but we are convinced that important as these are, they must be regarded as contributing rather than as actual causes of sexual misconduct in view of the low proportion of other delinquents in the same families, children born and reared under similar conditions, and often endowed with the same grade of mentality, who might reasonably be expected to show corresponding behavior if the determinants of conduct were not largely dependent on individual make-up. . . . the fundamental factor in behavior is not intellectual calibre or environmental conditions, but the peculiar personality which is played upon by emotional appeals plus concomitant circumstances.’" <sup>30 31</sup>

---

<sup>29</sup> Cooley, E. J., *Probation and Delinquency*, New York, Catholic Charities of the Archdiocese of New York, 1927, pp. 358-9. (A thorough examination of literature on the subject.)

<sup>30</sup> Bingham, A. T., *op. cit.*, p. 560.

<sup>31</sup> For additional references regarding "Interplay, etc.," see selections numbers 4, 7 and 15.

### C. Difficulties of Evaluating Factors—Lack of Norms or Comparative Standards

29. "The evaluation of environmental factors is a very difficult task, both because of the inherent subjectivity of the elements in the environment, and because of the dearth of norms or standards with which environmental data collected can be compared. To evaluate properly one's environment, one would be obliged to ascertain some very intimate and personal factors, which do not lend themselves to statistical comparisons even were such evaluations possible."<sup>32</sup>

\* \* \* \* \*

30. "There is evidence that the capacity to overcome slovenly and unthinking habits is weak where intelligence is inferior. There is evidence that conduct disorders arise more frequently among those of inferior rather than of superior intelligence.

"The use of individual and group intelligence tests in the comparison of slum and nonslum children has, with a degree of consistency, brought out significant differences in intelligence, favoring the nonslum children. Whether this difference is innate, or is due to differences in cultural background, is of theoretical interest but not of immediate practical importance, inasmuch as very little can be done to supply culture in wholesale quantities, in a hurry. A word of caution is necessary with regard to the comparison of averages. An average is a midpoint, with roughly half the cases falling on either side of it. Thus, when we speak of slum children as possessing on the average inferior intelligence, we do not deny the presence of many superior children in the distribution, but say merely that more dull children and fewer bright children will be found in a slum than elsewhere. It would be decidedly unfair to give, however unintentionally, the impression that *all* slum dwellers are mental inferiors, as many superior minds have grown up out of the soil of the slums. These, however, are the exception and not the rule.

"Indirect evidence on the point is gained from a study of boy life, made in Brooklyn by the Welfare Council of New York City, wherein it was shown that boys in a prosperous area were consistently less retarded and more frequently ahead of grade

---

<sup>32</sup> Slawson, J., *op. cit.*, p. 351.

in the public elementary schools than were children from a very poor area." <sup>33</sup>

\* \* \* \* \*

31. "Another family situation held to be of considerable importance as a factor in delinquency is the 'broken home.' In order to determine whether the broken home does furnish an undue proportion of delinquents and criminals, it is necessary to compare data relating to the home situations of nondelinquents with those of delinquents. Unfortunately, there are few accurate data relating to nondelinquents." <sup>34 35</sup>

## II. General Social Aspects

### A. Fundamental Societal Forces and Standards

32. "'When a child is arraigned in court, there are always three delinquents, the child, the parent and the community. And the last is the worst sinner, for it let the slum grow that wrecked home and child alike.'" <sup>36</sup>

\* \* \* \* \*

33. "There is basis in the literature for the view that the professional criminal is the final product of a long series of demoralizing social influences. His attitudes may be understood only in terms of these influences, and his actions only in terms of his attitudes." <sup>37</sup>

\* \* \* \* \*

34. "When we deal with children we encounter human needs centered in homes, schools, churches, and neighborhoods. The assumption at the root of the application of modern science to

---

<sup>33</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, pp. 284-5. (Critical analysis of available literature on this phase of criminology.)

<sup>34</sup> Ploscowe, M., *op. cit.*, p. 65.

<sup>35</sup> The following references also deal with the "Difficulties of Evaluating Factors—Lack of Norms or Comparative Standards": Numbers 16, 19 and 28.

<sup>36</sup> Coulter, E. K., *The Children in the Shadow*, New York, McBride, Nast and Company, 1913, (J. A. Riis in introduction), p. ix. (Observations and personal conclusions of author, formerly clerk of the Children's Court, New York City, for a number of years and founder of the Big Brother Movement.)

<sup>37</sup> Ploscowe, M., *op. cit.*, p. 96.

the treatment of the child is that normal social development is conditioned by family relationships; when these are broken the child is dependent upon near-by substitutes, foster-homes, or local institutions maintained by schools, churches, social agencies, etc. It may be inferred that the farther we travel from these community structures the greater is the child's handicap." <sup>38 39</sup>

### B. Cultural Patterns, Conflicts and Changes

35. "No satisfactory evidence has yet been produced to show that immigration has resulted in an increase in crime disproportionate to the increase in adult population. . . .

"The statistics do indicate, however, that American born children of immigrants exceed the children of natives in relative amount of crime." <sup>40</sup>

\* \* \* \* \*

36. "This is not surprising when we remember that here we have a group in which the fathers and mothers belong to a civilization with speech, tradition and habits different from those of the country in which they are living. The children, native born Americans with American companions and American schooling, adopt American ideals often not of the highest and are very apt, even when quite young, to feel that they know more than their parents. Lacking in any feeling of reverence, they early refuse to listen to the counsels of their parents. On the other hand, the parents often stand in awe of the superior cleverness, usually superficial, of their American born children." <sup>41</sup>

\* \* \* \* \*

37. "The home of an immigrant served very well in the old

<sup>38</sup> Van Waters, M., "Problems Presented to the Federal System of Justice by the Child Offender," *Report No. 6*, National Commission on Law Observation and Enforcement, Washington, U. S. Government Printing Office, 1931, p. 23. (Based on experience of a juvenile court referee.)

<sup>39</sup> See also regarding "Fundamental Societal Forces and Standards": Numbers 6, 14 and 16.

<sup>40</sup> U. S. Immigration Commission, "Immigration and Crime," *Senate Document No. 750* (Report to the Sixty-First Congress, Third Session), Washington, U. S. Government Printing Office, 1910-11, p. 1.

<sup>41</sup> Kneeland, G. J., *Commercialized Prostitution in New York City*, New York, The Century Company, 1917, pp. 177-8. (Comprehensive survey of vice conditions in New York City for the Bureau of Mental Hygiene by the author, former director of Chicago Vice Commission investigation, and a corps of assistants. Includes also a study of prostitutes committed from New York City to Reformatory for Women, Bedford Hills.)

country, where it was supported by the rest of the community, but torn from its setting and transplanted to the United States it may fail dismally." <sup>42</sup>

\* \* \* \* \*

38. "Public opinion in preliterate society made it practically impossible to commit crime. Public opinion in present society not only puts no such impassable barriers around the individual, but gives him glorified examples, makes him believe that crime is customary, breaks down the legal influences. It is probable that the principal reason for the difference in frequencies of crime in the United States and Canada or England is this public opinion." <sup>43</sup>

\* \* \* \* \*

39. "In those interstitial sections of Chicago where neglect and suppression of boyhood combine to produce gangs, there abound adult social patterns of crime and vice which are naturally reflected in the activities of the unsupervised gang or gang club. In the poverty belt, the deteriorating neighborhood, and the slum there is little understanding of the interests of boys or the situations they meet in everyday life. So far as immigrant communities are concerned the parents were reared for the most part in rural or semi-rural Old World communities controlled by tradition and with few new and disturbing situations to be met. Their children on the streets of Chicago come into contact with a motley collection of diverse customs on the one hand and new situations on the other. Hence they have needs of which their parents never heard." p. 252.

"Hence, without wholesome direction for the most part from the home or the larger community, the gang adopts the patterns which have prestige in its own social environment, selecting those which appeal to it and setting them up to be followed by its own members in so far as the group controls them." p. 253.<sup>44</sup>

\* \* \* \* \*

40. "Demoralizing social patterns confront the gang boy on every hand: They are in the streets and alleys; they come from

<sup>42</sup> Sutherland, E. H., *op. cit.*, p. 139.

<sup>43</sup> *Ibid.*, p. 167.

<sup>44</sup> Thrasher, F. M., *The Gang*, Chicago, University of Chicago Press, 1927. pp. 252-3. (A pioneer sociological study of 1,313 gangs.)

the older gangs and clubs and from the underworld; and they are impressed by various agencies that exploit the boy and in so doing promote unwholesome or criminal activities. The result for the gang is an inevitable repertoire of predatory activities and a universe of discourse reflecting the disorganized social environment of gangland."<sup>45</sup>

\* \* \* \* \*

41. *Abstract:* In Chicago, the child of the immigrant grows up in the romantic if ill-smelling jungle neighborhoods which lie about the loop district and the stockyards. Here he lives, explores ash cans, pries about buildings and imagines what happens beyond the pale. He imitates the most impressive of the people he sees, the "cops" and thieves. In his boy society codes, gang loyalty and the stigma of "squealing" are learned. Part of this code is derived from the anachronistic codes of parents transported from another culture area, and fitted to a simpler cultural epoch.<sup>46</sup>

\* \* \* \* \*

42. "Clearly our figures bear out the proposition that native born sons of foreign born parents contribute considerably more than their share to the criminal ranks. There are two and a half times (53%:22%) as many persons native born of foreign or mixed parentage in our reformatory group as are found in the general population."<sup>47</sup>

\* \* \* \* \*

43. "In the main delinquency is a function of time, place and personality. . . . The delinquencies of the Mexican are tied up largely with the nomadic life which he is leading and with the dislocation and disorganization which takes place within a person who is torn from his village community with its system of control and plunged into a new and strange and, in the main, disorganized environment. It is because of this dislocation and

<sup>45</sup> *Ibid.*, p. 257.

<sup>46</sup> Bolitho, W., *The Psychosis of the Gang*, *The Survey*, February 1, 1930, pp. 501-6, 545. (Personal opinion of an acute journalist on gang development and analysis of the gangster type.)

<sup>47</sup> Glueck, S. and E. T., *500 Criminal Careers*, New York, Alfred A. Knopf, Inc., 1930, p. 119. (Careful case and statistical study and follow-up of 500 men paroled from Massachusetts Reformatory.)

disorganization that he commits crimes here which he does not commit at home and more of them than he commits at home." <sup>48</sup>

\* \* \* \* \*

44. "Very often there is a lower standard of living in the homes of foreign born and a different cultural background which may make the child feel out of place in his community and cause him to rebel. Perhaps the most important of these factors, however, is the lack of knowledge of the English language in the home." <sup>49</sup>

\* \* \* \* \*

45. "Later the language problem enters in another form. The children have learned to speak, read, and write in English. They begin to feel superior to their parents because they can speak a language which the parents cannot understand. This gives the children the idea that they are very important and superior in their own social group." <sup>50</sup>

\* \* \* \* \*

46. "These two factors, the feeling of superiority and power in his own group on the one hand and the feeling of inferiority which results in resentment through the outside alien world, form the basis for the mental attitude of the gangster." <sup>51</sup>

\* \* \* \* \*

47. "Because immigrant homes appear to contribute an undue proportion of children to the delinquent population, the immigrant family has been said to be an inefficient agency of social education. The breakdown of the immigrant family is usually attributed to the conflict between American and Old World cultural standards. But the problem of the immigrant is complicated by the necessity of settling in the 'delinquency areas' where the children come into contact with demoralizing patterns of behavior." <sup>52</sup>

---

<sup>48</sup> Handman, M. S., "Nationality and Delinquency: The Mexicans in Texas," *Proceedings of the National Conference of Social Work*, Chicago, University of Chicago Press, 1930, pp. 133-45. (Analysis of situation by a professor of economics, University of Texas.)

<sup>49</sup> Miller, J., "Foreign Born Parentage and Social Maladjustment," *The Psychological Clinic*, March, 1930, p. 19. (Daily contact with maladjusted school children of foreign born parentage at city schools, Wilkes-Barre, Pa.)

<sup>50</sup> *Ibid.*, p. 20.

<sup>51</sup> *Ibid.*, p. 20.

<sup>52</sup> Ploscowe, M., *op. cit.*, p. 95.



48. "Underlying the present study of juvenile delinquency is the basic assumption that stable habits and attitudes in the child develop under the influence of a relatively stable and consistent set of social standards. Where the routine of social life is broken up by any form of rapid change and the child is subjected to the influence of a great variety of divergent and conflicting standards of conduct, the problem of developing a stable life organization is extremely difficult. As we have already suggested, the social life in the deteriorated and disorganized areas of Chicago fails to provide a sufficiently consistent set of conventional values for the development of stable and socially approved forms of behavior among the children. In the natural process of city growth the conventional traditions and neighborhood organization tend to disintegrate in these areas. This process of social disorganization and the consequent breakdown of neighborhood control is accentuated by the influx of large foreign and racial groups with varied cultural backgrounds. The child in this situation is not only isolated from the traditions of our conventional culture but is subjected to a great diversity of behavior norms, some of which come from the family, others from the schools and courts, and still others, perhaps the most stimulating and enticing, from the undirected play groups and neighborhood gangs. In this chaotic and confused situation it is not surprising that many of the children fail to acquire an attitude of respect for the law and the traditions of conventional society."<sup>53</sup>

\* \* \* \* \*

49. "In singling out culture conflicts we are merely pointing to one variety of many causal explanations of human conduct and conduct disorders, which may at the same time furnish valuable clues for therapeutic measures." p. 485.

"A culture conflict cannot be objectively demonstrated by a comparison between two cultural codes. It can be said to be a factor in delinquency only, if the individual feels it, or acts as if it were present." p. 490.

"In general, culture conflict, as I have encountered it in my cases, may eventuate in delinquency under the following types of situations:

---

<sup>53</sup> Shaw, C. R., and McKay, H. D., *op. cit.*, pp. 114-15.

1. Where the culture of a group, to which the individual belongs, sanctions conduct, which violates the mores or the laws of another group, to whose code he is also subject.

2. Where the individual belongs to a group in which certain forms of conduct have a different meaning and where there is a difference of emphasis in values than in the dominant society.

3. Where the individual belongs to a group whose very basis of organization is conflict with the larger society, from which the individual feels himself to be an outcast. This is obviously true in criminal gangs.

4. Where we have societies in which formal law is at variance with traditions, such as, for instance, where the use of alcohol is sanctioned by tradition but forbidden by law.

5. Where social life is very mobile and where culture is in a state of flux, such as in those areas of cities where there is no organized family or community life and where the social frame-work, that ordinarily supports the individual in his conduct, disintegrates or fails to function.

6. Where the individual belongs to a group, which is itself the product of the incomplete blending of different cultural strains, such as a family in which father and mother belong to different racial or religious groups.

7. Where an individual belongs to a group in which he finds himself dissatisfied and stigmatized, but from which he cannot readily escape into the group that he considers superior." pp. 491-2.<sup>54</sup>

### C. Nationality or Race and Crime

50. "Lower-grade intelligence generally, bad housing conditions, the indifference of whites to the Negro problem, and the importation within recent years of many Negroes from the South undoubtedly are among the chief reasons for their local criminal record, which shows 24.2 felonies to the thousand of population during the three years."<sup>55</sup>

\* \* \* \* \*

51. "Thus, when one views the congestion in poor dwellings in crowded neighborhoods; the lack of recreational facilities and the presence of unwholesome, artificial devices where Negroes may spend their leisure; the prevalent system of segregation and discrimination whereby Negroes are denied the privileges and conditions of citizenship compatible with the greatest good; the element of prejudice that enters into the administration and execution of the law, either subtly or overtly; the unequal distribution

<sup>54</sup> Wirth, L., "Culture Conflict and Misconduct," *Social Forces*, June, 1931, pp. 485, 490, 491-2. (Study of social psychology and individual behavior.)

<sup>55</sup> Gault, R. H., *op. cit.*, p. 34.

of occupational opportunities making Negroes the marginal workers, . . . the total lack of a scientific formula for guidance and training in vocations; a disfranchised working class . . . that will be diseased, criminal, ignorant, the plaything of mobs, and insulted by caste restrictions; . . . such a one is forced to conclude that the experience so far gained indicates that the volume of crimes among Negroes is susceptible to vast improvement by effecting changes in the factors underlying the crime.”<sup>56</sup>

\* \* \* \* \*

52. “There are many positive influences leading to delinquency in the disorganized areas. . . . The racial and nationality composition of the population in the areas of high rates of delinquents changed almost completely between 1900 and 1920, while the relative rates of delinquents in these areas remained practically unchanged.

“As the older immigrant groups moved out of the areas of high rates of delinquents the rates of delinquents among the children of these groups decreased and they tended to disappear from the juvenile court.”<sup>57</sup>

#### D. General Economic Conditions and Crime

53. “Conclusions: It is seen, therefore, that fluctuations in the state of business affect, in most cases strongly, business failures, wages, unemployment, destitution, immigration, strikes, marriage, divorce, births, suicides, crime, liquor consumption, religious activities, and liberal labor policies. I have cited only the social conditions that have been subjected to rigorous scientific analysis. . . .

“One conclusion to be drawn is that the quantitative determination of the influence of the business cycle on social conditions is the measurement of a social force of magnitude and importance. Frequently failure, wages, poverty, marriage, crime, etc., are

---

<sup>56</sup> Reid, Ira De A., “Notes on the Negro’s Relation to Work and Law Observance,” *Report on the Causes of Crime* (Report No. 13, Vol. I), National Commission on Law Observance and Enforcement, Washington, U. S. Government Printing Office, 1931, pp. 252-3. (Analysis of cases of 80 Sing Sing prisoners; also, includes materials collected by other investigators of crime among Negroes. The author is director of research for the National Urban League.)

<sup>57</sup> Shaw, C. R., and McKay, H. D., *op. cit.*, p. 388.

seen as purely individual problems, in terms of personality, will power, and individual behavior, as though the subjective free will of the individual were responsible, in a purely personal way. . . . Since such a social force exists, there is value in seeing it as a social force and not trying to treat the situation in terms of individuals and personalities. . . .

"Still, stable conditions of business would mean less unemployment, less crime, and less destitution. But it is not at all clear that this social force can be controlled."<sup>58</sup>

\* \* \* \* \*

54. "To Bonger and his school the capitalistic organization of society, as he calls it, is the mother of all crimes. . . . Bad social conditions, such as crowded housing, indecent living conditions, improper care of children, lack of education, denial of opportunity at the higher culture, emphasis upon selfishness instead of upon consideration of social welfare, all due to our present society. . . . He believes that if the productive instruments of wealth were owned by the state and the profits were removed from modern industry, crime would largely disappear. . . . The profit motive would not dominate industry; poverty with its crushing, degrading influence would not exist; and the present social conditions responsible for so much crime would be removed."<sup>59</sup>

\* \* \* \* \*

55. "In addition to the incentive to crime found in the unequal distribution of wealth and the feverish struggle for economic and social prestige there are other economic conditions which affect the rate of criminality. The business cycles, the resulting unemployment in times of depression, the speculative eras in times of economic expansion, business failures, and want, poor housing, lack of sanitation consequent upon business depression, furnish disturbances which incite to crime." p. 248.

"In the cities where the most careful studies have been made, abundant evidence that juvenile delinquency is produced by certain forms of child labor has been discovered." p. 251.

<sup>58</sup> Ogburn, W. F., "The Fluctuations of Business as Social Forces," *Journal of Social Forces* (1922-1923), January, 1923, Vol. I, p. 78. (Investigations and results of studies of the influence of business conditions on the particular social conditions studied.)

<sup>59</sup> Gillin, J. L., "Economic Factors in the Making of Criminals," *The Journal of Social Forces* (1924-1925), January, 1925, Vol. III, p. 248. (Analysis and review of literature on economic factors and crime.)

"Economic conditions also influence congestion of the houses upon the lots, neighborhood conditions, distance from the factory districts, and many other social conditions." p. 253.<sup>60</sup>

### III. Environmental Aspects

#### A. City as Setting for Crime

##### 1. CITY ENVIRONMENT

56. "It is the sins of the city against the children that stand out most startlingly in the children's courts. The community robs the child in the congested districts of everything a growing human being needs for health of mind and body—and then it would punish him when his efforts to win these chances for himself bring him sharply against the law of a grown-up world. Were there anything like a rational distribution of population, were the dwellers in the tenements not deprived of light and space, were the tenement children not desperately put to it for anything like normal play, there would be a great falling off in the numbers that pass into the children's courts, the charitable, reformatory and the penal institutions."<sup>61</sup>

\* \* \* \* \*

57. "Largely on account of restricted playspace, petty gambling, such as crap-shooting and card-playing for small gains in the rear of cigar and candy stores in the poorer sections of the city, has become startlingly prevalent. City children are no more naturally depraved than children brought up in the country. They are simply forced to live pinched lives."<sup>62</sup>

\* \* \* \* \*

58. "There is no marked relationship between delinquency and congestion. All the sanitary districts near the commercial district are congested, but in the seven sanitary districts remote from it

---

<sup>60</sup> *Ibid.*

<sup>61</sup> Coulter, E. K., *op. cit.*, p. 59.

<sup>62</sup> Lewis, B. G., *The Offender*, New York, Harper and Brothers, 1917, p. 277. (Results of study and experience as Commissioner of Correction, New York City. This book is more a treatment of the manner in which criminals should be handled than a work on causes or factors of crime with which it deals very little.)

three noncongested and four congested areas had ratios for delinquency below the average." <sup>63</sup>

\* \* \* \* \*

59. "No direct relationship between congestion of population and degree of delinquency could be found." <sup>64</sup>

## 2. CITY DYNAMICS—GROWTH AND CHANGE

60. "On account of railways and governmental and commercial concentration, civilization tends continually to make the great centers of population still larger and to overpopulate the principal cities. And, as is well known, it is in these that are found crowded together the greatest number of habitual criminals. This unfortunate concentration of crime is to be explained by the greater profits or the greater security which the large cities offer to criminals. But this, perhaps, is not the only reason, for if in the cities vigilance is more relaxed, prosecution is more active and systematic; and if temptations and inducements to crime are more numerous, so are the opportunities for honest labor. I believe that there is another influence at work which is more powerful still. The very congestion of population by itself gives an irresistible impulse toward crime and immorality." <sup>65</sup>

\* \* \* \* \*

61. "The single exception to this seeming relation between delinquency and congestion on the West Side is the Fourteenth Ward, which contains the Negro quarter of the northwest side. Like the other large Negro districts of the city, this is not a district characterized by overcrowding, but it has all the other features of poor and neglected neighborhoods. In no wards are there found greater dilapidation and poorer sanitary conditions within the homes than in the wards where the houses are rented to Negro tenants. Moreover, it must not be forgotten that in

<sup>63</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Delinquency in a District of Kings County," *Report of the New York Crime Commission, 1927*, Albany, 1927, p. 380. (Careful study of cases in Brooklyn, N. Y.)

<sup>64</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission, 1930*, Albany, 1930, p. 190. (A study of environmental factors in juvenile delinquency in a district of Manhattan Borough, New York City.)

<sup>65</sup> Lombroso, C., *Crime, Its Causes and Remedies*, Boston, Little, Brown and Company, 1911, p. 53. (Personal examinations of criminals; also statistical and inductive analysis of causes.)

Chicago as in many other cities the Negro quarters are located in sections of the city which have been relinquished by the white population as undesirable residence sections.”<sup>66</sup>

\* \* \* \* \*

62. *Abstract:* The home addresses of 9,243 delinquent boys in Chicago were plotted upon a map and the percentage of delinquent boys to all boys of the same age group was figured by square mile areas. Radials struck outward from the business center (the “Loop”) show a steadily decreasing rate of delinquency from approximately 25 per cent of all boys delinquent in downtown areas to almost no delinquency in some of the outlying residential areas. In a few instances, the rates begin to increase near the edge of the city. Study of individual records show that in over 90 per cent of the cases stealing is a group activity—especially is this true of petty stealing. Stealing may become a social pattern in a gang and be thus transmitted to new individuals and to new groups. Types of delinquency are localized; shoplifting is concentrated near the loop; homo-sexual practices occur in the rooming houses area.<sup>67</sup>

\* \* \* \* \*

63. “There are many neighborhoods with great mobility. The neighborhood then has no code, no standard, no tradition and consequently has little or no influence in controlling conduct.”<sup>68</sup>

\* \* \* \* \*

64. “*Transitional zones.* Some of the worst cases of social maladjustment and delinquency may be found in isolated rural communities. It is not density of population which is of great significance in juvenile delinquency, since we find that there is no significant coefficient of association between them, but rather the ‘transitional zone’ area, *where the details of the individual’s life do not definitely fit into the established group organizations and activities; where the details of the individual’s life are lost in the*

<sup>66</sup> Breckinridge, S. P., and Abbott, E., *The Delinquent Child and the Home*, New York, Russell Sage Foundation, 1912, p. 153. (Study of delinquents in Juvenile Court, Cook County, Ill., 1899-1909.)

<sup>67</sup> Shaw, C. R., “Delinquency and the Social Situation,” *Religious Education*, May, 1929, Vol. XXIV, pp. 409-17.

<sup>68</sup> Sutherland, E. H., *op. cit.*, p. 152.

*group activities*, the nature of which is unknown to other members of his primary group.”<sup>69</sup>

\* \* \* \* \*

65. “The *man-made* factors in the gang’s impersonal environment are of equal importance in their influence upon the location and nature of its activities. In New York, where boys have such restricted playspace and where the tenement provides the chief form of housing for the poor, adolescent gang life differs from that in Chicago. Chicago, comparatively young and free from tenements, sprawls over a large territory and most of its congested areas have many ramshackle buildings and hide-out places for the gangs. Railroads and sources of junk, such as empty houses, alleys, and rubbish dumps, also condition the life of Chicago gangs in important respects. A blind street, a hemmed in or isolated housing situation, a group of dwellings fronting on an inclosed court or private street, or a large number of flats above the first story in an exclusively business area like South State Street give a particular trend to the group life of the boys living within their confines.”<sup>70</sup>

\* \* \* \* \*

66. “According to Table 17 (1900-1925) it is indicated that of the 1,035 cases of *male delinquents* dealt with by the court in 1900, the highest percentages, 20.4 and 18.7, are to be found in the German and Irish groups, respectively. The percentage in these two national groups consistently decreased to 3.5 and 3.1 respectively, in 1925. This decrease is probably due in part to the fact that most of the Germans and Irish no longer live in the areas of disorganization and delinquency. Although some have continued in delinquency and have later been classified as white Americans, it is not improbable that this decrease represents an actual decrease in the rate of delinquency in these groups.

“Of equal consistency, but opposite in tendency, is the marked increase in the percentages of Italians and Poles, the former

<sup>69</sup> Burgess, E. W., *The Urban Community*, Chicago, University of Chicago Press, 1926, p. 163. (Quoting from Elmer, M.C., “Maladjustment of Youth in Relation to Density of Population,” a short paper for the Proceedings of the American Sociological Society, 1927, based on data gathered for a study of factors contributing to juvenile delinquency in the Twin Cities of Minnesota.)

<sup>70</sup> Thrasher, F. M., *op. cit.*, pp. 146-7.



having increased from 5.1 in 1900 to 12.8 in 1925, and the latter from 15.5 in 1900 to 21.9 in 1925, after having apparently reached its peak in 1920 when it constituted 24.5 per cent of the cases. Thus the German and Irish groups have over a span of twenty-five years given way to the Italian and Polish groups. This is undoubtedly due in a large measure to the fact that the Italians and Poles constitute the most recent immigrant groups (excepting the Negro), and, as in the case of their predecessors, have been attracted by low rents to the areas of deterioration where social disorganization and delinquency prevail."<sup>71</sup>

\* \* \* \* \*

67. "The group of cases here presented are far too small a number from which to draw conclusions regarding slums in general. They do suggest, however, that our segregated areas of poor housing are areas in which the general intelligence level is below average. If this be true it would profoundly affect our views on the problem of eradicating the slums. A conception of the slum as a simple living area brings many new questions to the foreground. The old concept that the 'melting pot' functions through mingling of races would have to be set aside in favor of an approach that recognized the problem of eradicating slums; not primarily as one in sociology, but of one in education. As we have stated elsewhere, the sociological problem of family life in the slum seems to settle itself—the families of better capacities move out. Thus, in New York City, in the ten years following the national policy of immigration restriction, we have seen vast losses in slum population. But the educational problem of dealing with those who remain would thus be intensified."<sup>72</sup>

\* \* \* \* \*

68. "Urban sociologists claim that juvenile delinquency and crime, while not completely confined to any given areas or social

<sup>71</sup> Shaw, C. R., and Myers, E. D., "The Juvenile Delinquent," *Illinois Crime Survey*, Chicago, Illinois Association for Criminal Justice, 1929, p. 668. (Records of the juvenile courts and the monthly records of the juvenile police probation officers assigned to the various police stations in Chicago.)

<sup>72</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Problem Boys and Their Brothers," *Report of the New York Crime Commission*, 1929, Albany, 1929, p. 212. (A study of adolescent problem boys and their nonproblem brothers, with a maximum age difference of four years, based on individual histories and utilizing a psychological, as well as a sociological, point of view and technique.)

class, arise primarily in certain transition areas, of poor housing, popularly termed 'slums.' " <sup>73</sup> <sup>74</sup>

### B. Neighborhoods, Areas or Districts

69. "In developing their own organization, gang boys cannot go beyond their experiences, and hence their code and chosen activities must be studied with reference to the moral codes and activities they meet in the communities where they live. Gang morality develops from the interpretation or definition which the gang, in the light of its previous experience, puts upon events." <sup>75</sup>

\* \* \* \* \*

70. "I do not think there is any doubt of the correctness of the thesis that the gang is a symptom of community disorganization. I believe that most, if not all, of the great gangs of New York—not the modern bootlegger and killer groups, but the old organizations such as the Gophers, the Hudson Dusters, etc.—grew out of such disorganization." <sup>76</sup>

\* \* \* \* \*

71. "These disorganized conditions do not directly produce gangs, but the gang is an interstitial growth, flowering where other institutions are lacking or are failing to function efficiently. It is a symptom of the disorderly life of a frontier." <sup>77</sup>

\* \* \* \* \*

72. "The chief purpose in this paper has been to emphasize the fact that children act as they act not because of innate badness but because of the total influence of their environment upon the particular heredity which they may have. This means that truancy is not a simple affair to be solved by locking the boy up in the detention home or the county jail or hailing him into court, but requires for its solution an analysis of the more fundamental relationships and ideals of the community." <sup>78</sup>

---

<sup>73</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 276.

<sup>74</sup> Regarding "City as Setting for Crime" see passage number 48.

<sup>75</sup> Thrasher, F. M., *op. cit.*, p. 255.

<sup>76</sup> *Ibid.*, p. 495.

<sup>77</sup> *Ibid.*

<sup>78</sup> Williams, H. D., "Truancy and Delinquency," *Journal of Applied Psychology*, 1927, Vol. XI, pp. 276-88.

73. "The picture of the gangster presented in this chapter differs widely from the current descriptions of him, whether those of soft-hearted sentimentalists or of hard-headed realists. When allowed to speak for himself, he is seen to be neither an innocent youth led astray by bad companions but ready to make good if given a chance, nor a hardened and vicious individual who has deliberately and vindictively chosen to wage war on society.

"The story which he gives of his own life shows him to be a natural product of his environment—that is, of the slums of our large American cities. These slum areas have been formed in the growth of the city. They have been ports of first entry for each new wave of foreign immigration. These slum areas inhabited by national groups, as well as industrial areas like back-of-the-yards, are subject to the constant misfortune of the drawing off and moving away of the legitimately successful people. The constant ambition that grows with the rise of the people is to get out into the better districts of the city. As the successful families move away they leave behind the unsuccessful, laboring foreigner, who is not accepted as a model for the children and youth in their process of Americanization. But there also remain the gangster and politician chief, who become practically the only model of success.

"It follows that the gangster is a product of his surroundings in the same way in which the good citizen is a product of his environment. The good citizen has grown up in an atmosphere of obedience to law and of respect for it. The gangster has lived his life in a region of law breaking, of graft, and of 'fixing.' This is the reason why the good citizen and the gangster have never been able to understand each other. They have been reared in two different worlds." <sup>79</sup>

\* \* \* \* \*

74. "The areas in which the greatest concentrations and highest rates are found have many characteristics which differentiate them from the outlying residential communities. As indicated previously, these areas are in a process of transition from residence to business and industry and are characterized by physical deterioration, decreasing population, and the disintegration of the conventional neighborhood culture and organization.

---

<sup>79</sup> Landesco, J., "Organized Crime in Chicago," *Illinois Crime Survey*, Illinois Association for Criminal Justice, Chicago, 1929, p. 1057. (A pioneer investigation of gangster operations and of "racketeering" in Chicago.)

"Since delinquents are largely concentrated in these characteristic areas, it may be assumed that delinquent behavior is very closely related to certain community situations which arise in the process of city growth. The way the elements in these situations become involved in the development of delinquent behavior trends can be understood only after thorough studies of community backgrounds have been made. . . .

"Under the pressure of the disintegrative forces which act when business and industry invade a community, the community thus invaded ceases to function effectively as a means of social control. Traditional norms and standards of the conventional community weaken and disappear. Resistance on the part of the community to delinquent and criminal behavior is low, and such behavior is tolerated and may even become accepted and approved.

"Moreover, many of the people who come into the deteriorating section are European immigrants or southern Negroes. All of them come from cultural and social backgrounds which differ widely from the situations in the city. In the conflict of the old with the new the former cultural and social controls in these groups tend to break down. This, together with the fact that there are few constructive community forces at work to reestablish a conventional order, makes for continued social disorganization.

"Many of the boys' groups that are indigenous to these disorganized areas are unconventional or delinquent in their traditions and norms. It is probably significant that most of the boys appearing in the juvenile court are members of delinquent gangs. The study of detailed case histories indicates that many delinquent careers have their origin in the activities of these delinquent groups."<sup>80</sup>

\* \* \* \* \*

75. "It has been quite common in discussions of delinquency to attribute causal significance to such conditions as poor housing, overcrowding, low living standards, low educational standards, and so on. But these conditions themselves probably reflect a type of community life. By treating them one treats only symptoms

---

<sup>80</sup> Shaw, C. R., *et al.*, *Delinquency Areas*, Chicago, University of Chicago Press, 1929, pp. 204-5. (Detailed study of delinquency in the City of Chicago which reveals the type of city areas which give birth to maladjustment in the form of crime and delinquency—due to the process of growth of the city and disintegration of the community as a unit of social control. Poor housing, etc., are but symptoms of more basic processes.)

or more basic processes. Even the disorganized family and the delinquent gang, which are often thought of as the main factors in delinquency, probably reflect community situations.”<sup>81</sup>

\* \* \* \* \*

76. “In short, with the process of growth of the city the invasion of residential communities by business and industry causes a disintegration of the community as a unit of social control. This disorganization is intensified by the influx of foreign national and racial groups whose old cultural and social controls break down in the new cultural and racial situation of the city. In this state of social disorganization, community resistance is low. Delinquent and criminal patterns arise and are transmitted socially just as any other cultural and social pattern is transmitted. In time these delinquent patterns may become dominant and shape the attitudes and behavior of persons living in the area. Thus the section becomes an area of delinquency.”<sup>82</sup>

\* \* \* \* \*

77. “It is extremely significant that the variations in the rate of delinquents show a rather consistent relationship to different types of community background. Thus the area in which the highest rate is found is the area of deterioration surrounding the ‘Loop.’ This area is characterized by marked physical deterioration, poverty and social disorganization. In this area the primary group and conventional controls that were formerly exercised by the family and neighborhood have largely disintegrated. Thus delinquent behavior, in the absence of the restraints of a well-organized moral and conventional order, is not only tolerated but becomes more or less traditional.

“Surrounding the area of deterioration there is a large area of disorganization, populated chiefly by immigrant groups. In this area of confused cultural standards, where the traditions and customs of the immigrant group are undergoing radical changes under the pressure of a rapidly growing city and the fusion of divergent cultures, delinquency and other forms of personal disorganization are prevalent. In this area the rate of delinquents ranges roughly between 20.0 and 8.0 in the case of males, and from 4.0 to 2.0 in the case of females.

---

<sup>81</sup> *Ibid.*, p. 205.

<sup>82</sup> *Ibid.*, pp. 205-6.

"In the outlying exclusive residential districts of single-family dwellings and apartment buildings the rate of delinquents is invariably low. With few exceptions the rate in these districts falls below 2.0." <sup>83</sup>

\* \* \* \* \*

78. "In the study of the distribution of places of residence of delinquents it was revealed that certain areas of the city produce a disproportionately large number of the delinquents who are brought to the police station and the juvenile court. It was pointed out, also, that the rate of delinquency showed a rather consistent relationship to the type of community background, being consistently high in the areas of deterioration and low in the residential areas of single-family dwellings and apartment houses. These findings seem to suggest that the problem of delinquency is to a certain extent a community problem. In other words, delinquent conduct is involved in the whole social life and organization of the community. This is a phase of the problem which has been greatly overlooked, both in the study of the causes of delinquency and in the treatment of the offender." <sup>84</sup>

\* \* \* \* \*

79. "That the slum is usually the home of the urban delinquent child is acknowledged by all investigators who have conducted broad-scale inquiries covering urban communities in their entirety. The areas of isolation, of deteriorating housing, of immigrant population, stand out on delinquency spot maps as sore spots.

"The boys studied in this report come from two such areas, one situated in a downtown neighborhood whose delinquency rate for children was 4 per cent and for boys 16 to 18 a similar amount; the other, an uptown Manhattan area where the delinquency rate was slightly less. These two areas, each not more than half a mile square, were selected for this study as being among the highest in juvenile delinquency in the entire city." <sup>85</sup>

\* \* \* \* \*

80. "The significance of these conclusions must be patent to all.

---

<sup>83</sup> Shaw, C. R., and Myers, E. D., *op. cit.*, p. 652.

<sup>84</sup> *Ibid.*, p. 662.

<sup>85</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Problem Boys and Their Brothers," *Report of the New York Crime Commission*, 1929, Albany, 1929, p. 210.

It shifts the emphasis from consideration of the delinquent purely as an individual and subordinates case study and psychological analysis of the individual offender to a process of considering the delinquent as a person in a social setting and involves a program of effort directed at this complete group and not at himself alone, nor even directed at the limited social group involved in family relations. It involves knowing the delinquent in every one of his group relationships—it thus involves thorough knowledge of all neighborhood groups. But the importance of the case and psychological findings, though subordinated to a study of the group, cannot, however, be overlooked in view of the conclusion that the delinquent is probably a mental inferior, in an inferior setting. It is incumbent that analysis of the social group, of the neighborhood life, be in terms of its ultimate units, the boys and girls, fathers and mothers, in terms of their capacities and deficiencies, their defects of temperament and of will.

“Such a view of the delinquency problem means that scientific effort must include study, not of the neighborhood alone, nor of the individual alone, nor of the family alone, but of the individual delinquent, with his abilities and deficiencies known, living in a family whose abilities and deficiencies are known, living among friends and neighbors likewise known. It calls for a study of the problem of delinquency in terms of neighborhood or natural area units, based on analysis made at different levels; at the level of the individual, the level of the family, the level of the play group and the level of the general neighborhood life. It may be stated without fear of contradiction that this type of analysis has not yet been made.”<sup>86</sup>

\* \* \* \* \*

81. “Neighborhood conditions were distinctly unfavorable in 42 cases, favorable in 31, and in 9 the knowledge of the neighborhood in which the boy lived at the time of his offense was not sufficient to form a basis of classification. In 25 cases both home and neighborhood conditions were considered poor, and in 19 both were favorable.”<sup>87</sup>

<sup>86</sup> *Ibid.*, p. 216.

<sup>87</sup> Burke, D. W., “Youth and Crime,” *Children's Bureau Publication No. 196*, Washington, U. S. Government Printing Office, 1930, p. 111. (Careful review of statistical reports by juvenile courts to the U. S. Children's Bureau, but above quotation based on only 82 original cases.)

82. "A comparison of the home and neighborhood conditions indicates a very high correlation between the type of home and the type of neighborhood. Thus of the 291 instances in which the home conditions were determinable, 72 were classifiable as favorable, and of these 72.2 per cent were known to be in favorable neighborhoods. Again, of the 121 homes classifiable as fair, 79.7 per cent were in fair neighborhoods, 16.5 per cent in unfavorable neighborhoods, and 3.8 per cent in favorable neighborhoods. Of the 98 homes classifiable as unfavorable, 91 were in unfavorable neighborhoods and not one in a favorable neighborhood."<sup>88</sup>

\* \* \* \* \*

83. "Burt, in his London studies of juvenile delinquency, analyzed the residences of 2,000 cases of industrial school commitments and found a broad association between juvenile crime and areas of poverty. He charted the map of London, showing the ratios of delinquent to normal children in the various boroughs, and found the boroughs in the heart of the city to have the highest delinquency rates, followed by adjacent boroughs on both banks of the Thames."<sup>89</sup>

\* \* \* \* \*

84. "There is a growing body of evidence that the slum has easy, lax standards, obtuse moral perceptions, uncoordinated and chaotic strivings, because it is composed, to a great extent, of persons endowed with poor intelligence, who lack the capacity to consider a large number of details in making a decision, lack foresight, and cannot make fine ethical discriminations."<sup>90</sup>

\* \* \* \* \*

85. "In April, 1929, the Children's Aid Society published the results of an investigation into juvenile delinquency conducted by the Baumes Commission. A part of a district below Third Street, east of the Bowery, in New York City, with a population of 220,000, was selected for the inquiry. It was found that in 1926, 819 boys and 107 girls between seven and sixteen years of age had come to the attention of the social agencies. No direct relation

<sup>88</sup> Glueck, S. and E. T., *op. cit.*, p. 202.

<sup>89</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 276.

<sup>90</sup> *Ibid.*, p. 284.



between housing congestion and degree of delinquency was found, but bad housing conditions had a distinct bearing on the extent of the latter. It was reported that 'in four small blocks of wretched housing under an elevated structure 58 boys and girls, or nearly four times the average for the area, were reported as conduct problems during 1926.\*' In an area devoted to commercial activities 58 gangs of boys who committed delinquencies were discovered."<sup>81</sup>

\* New York Times, April 21, 1929.

\* \* \* \* \*

86. "The existence of room congestion is not a sporadic occurrence, but follows very generally upon the heels of land congestion and seriously augments the density of occupancy. In the most congested sections, toilets either in the halls or yards were shared by several families and were not only an aid to the communication of disease but a menace to morality and decency."<sup>82</sup>

\* \* \* \* \*

87. "In probation cases, in which neighborhood environment is a factor to be reckoned with, although there may be improvement shown or perhaps an apparent cure for a time, despite inability to change such environment, there remains the constant danger of a relapse by the child to old habits and former temptations just as long as he or she is obliged to live in the same neighborhood. Thus, under existing housing conditions the probationary period is frequently prolonged in such cases beyond what it need be normally, ending very often in failure and consequent commitment of a girl or boy to an institution."<sup>83</sup>

\* \* \* \* \*

88. "These two types of areas are described as having certain stigmata. The transition areas exhibit conditions of poor housing and low rentals, mobile and decreasing population, great poverty

<sup>81</sup> Committee on Regional Plan of New York and Its Environs, "Buildings, Their Uses and The Spaces about Them," *Regional Survey of New York and Its Environs*, New York, The Committee, 1931, Vol. VI, (Monograph Two, Adams, T., and Heydecker, W. D.) p. 212. (An authoritative analysis of housing and various social conditions.)

<sup>82</sup> *Ibid.*

<sup>83</sup> "The Present Status of the Housing Emergency," *Report of New York Commission of Housing and Regional Planning*, Albany, The Commission, December 22, 1923. p. 81.

and dependency, a marked absence of the home owning class, a largely foreign population of inferior social status, high delinquency ratios, vicious gang organizations, poor type of commercial recreation, and inadequate open-air play facilities in parks and playgrounds, a tendency to inferiority in average general intelligence. Certain of these characteristics, such as mobility of population, are absent in the delinquency areas of isolation."<sup>94</sup>

\* \* \* \* \*

89. "Some objections may be made to studies such as these. There is the fundamental question whether cases coming before the courts from a particular district are a fair representation of the actual amount of crime and delinquency in the district. In congested areas detection may be easier. Acts which may cause the individual to be taken to court in such areas, charged with juvenile delinquency, may not result in a court appearance in non-congested areas."<sup>95</sup>

\* \* \* \* \*

90. "Not only are the opportunities for the contact with the demoralizing social patterns greater, but, in 'delinquency areas,' with their characteristic conditions of bad housing, poor economic condition, inadequate family life, and lack of proper facilities for recreation, the most attractive outlet for the growing child's energies, is offered by the gang, with its tendency toward delinquent activities and its transmission of demoralizing social patterns of behavior."<sup>96</sup>

\* \* \* \* \*

91. "Despite the fact that the districts near the center of the city show a decreasing population, the density of population, as measured by the number of inhabitants per acre in the area not occupied by industry, is greatest in the areas within two miles of the central district and tends to decrease with considerable regularity out from the inner zone. In general the areas with the highest rates of delinquents fall within those sections of the city having the greatest density of population. The notable exceptions to this tendency are found in the high-class apartment districts, where the density is relatively high, but the rates of delinquents

<sup>94</sup> Ploscowe, M., *op. cit.*, p. 79.

<sup>95</sup> *Ibid.*, p. 78.

<sup>96</sup> *Ibid.*, pp. 95-6.

are low, and in a few outlying areas where the rates of delinquency are comparatively high but the density is low because of the presence of considerable unoccupied waste land.”<sup>97</sup>

\* \* \* \* \*

92. “Delinquency areas in Chicago are characterized by physical deterioration, decreasing population, high rates of dependency, high percentages of foreign and Negro population in the total population, and high rates of adult crime.”<sup>98</sup>

\* \* \* \* \*

93. “The areas of high rates of delinquents in other cities have characteristics similar to the characteristics of the areas of high rates in Chicago.”<sup>99 100</sup>

### C. Home as Setting for Crime

#### 1. PHYSICAL BASIS—BAD HOUSING

94. “There are many illustrations among the family paragraphs of confused family groupings and overcrowded homes that children forsake eagerly for the wide freedom of the street. Year after year, ever since the establishment of the court, small boys have been brought in for such offenses as sleeping under houses, sleeping in hallways, sleeping in barns, in sheds, basements, and similar places. In many cases the child is trying to escape from cruel or brutal parents, but sometimes the simple fact of an uncomfortable, overcrowded home is undoubtedly the cause. The case of a Polish boy who was brought to court for sleeping in barns when the alternative was sharing a small apartment with a family of ten has been referred to. An Irish boy nine years old was found sleeping under a house and was brought to court as a ‘vagrant.’ In his home there were eleven persons in a three-room apartment, and the space under the house must have seemed peaceful and spacious in contrast. A German boy, who was one of five children, was brought to court as ‘incorrigible’ for sleeping under sidewalks.

<sup>97</sup> Shaw, C. R., and McKay, H. D., *op. cit.*, p. 74.

<sup>98</sup> *Ibid.*, p. 386.

<sup>99</sup> *Ibid.*, p. 389.

<sup>100</sup> The following passages supplement those given above on “Neighborhoods, Areas or Districts”: Numbers 9, 10, 18, 30, 32, 39, 41, 47, 48, 52, 56, 57, 58, 65, 66 and 67.

Both parents, however, were drunken and immoral, and the home in which he refused to stay was described as 'four filthy rooms in the basement of a dilapidated old cottage.' A little Italian boy was found sleeping in a haystack; he was one of six children; his father was paralyzed, and his mother had gone to live with her sister. In the home of a German family there were seventeen children; the father drank heavily and finally died from the effects of drink; the mother, who could speak very little English, went out washing, and supplemented the family earnings still further by adding boarders to the already overcrowded house. It is not difficult to understand why the boy preferred 'sleeping out nights.' It is undoubtedly the discomforts of home, quite as much as the 'roving disposition' so often referred to, which create the semi-homeless little boys who, in the words of the court records 'wander the streets by day and sleep in barns at nights.' " <sup>101</sup>

\* \* \* \* \*

95. "The living together in close quarters, even sleeping together, of adults and children, of parents and lodgers, must arouse sexual instincts at an early age. The mode of life becomes so much the more dangerous, the less restrained the passions of the adults are—particularly so, in the case of criminals and prostitutes." <sup>102</sup>

\* \* \* \* \*

96. "... Hardly a married couple in any crowded neighborhood have a room to themselves, and children sleep with their parents up to the approach of youth. It is almost inevitable that children should come to know the innermost reserves of marriage, as a result of which many are led to surrender their chastity and even to participate in gross immoralities. It is universally agreed, however, that the damage is nothing like so great as might be expected; and that many girls are not only not conscious of lack of rest, but are so habituated to congested conditions that they are unwilling to sleep alone." <sup>103</sup>

<sup>101</sup> Breckinridge, S. P., and Abbott, E., *op. cit.*, p. 118.

<sup>102</sup> Aschaffenburg, G., *Crime and its Repression*, Boston, Little, Brown and Company, 1913, p. 134. (A critical review of the foreign literature on the bio-social conditions of criminality by a recognized psychiatric criminologist.)

<sup>103</sup> Woods, R. A., and Kennedy, A. J., *Young Working Girls*, Boston, Houghton, Mifflin Company, 1913, p. 42. (Results of settlement experience.)

97. "Overcrowding has its results in stunted growth, lowered vitality, retarded mentality, frequent headache, nervousness, conscious and unconscious, and the conflagration-like spread of tuberculosis and other diseases. Morally it breaks down the feeling of privacy, and hence brings on loss of self-respect, of modesty, of order, of neatness. In general its dehumanizing effects are seen in failing amenities, in the disintegration of the family, in a tendency to focus life on the streets, in increasing habits of criminality, and in the prevalence of every phase of low-grade citizenship.

"Among the more alarming aspects of overcrowding is the necessity that several persons share the same sleeping-room, and, very commonly, that three or more persons occupy the same bed. The disturbance within and without the house and the universal lack of ventilation result in lowered vitality, nervousness, irritation, depression, uncleanness, and the dissemination of disease."<sup>104</sup>

\* \* \* \* \*

98. "The fact that the proportion of juvenile delinquents from this ward is more than three times as large as that from any other ward gives us a clue to the causes of the situation. . . . The fundamental cause is the low grade home environment which tends to the demoralization of the child. The bad housing conditions of the city are concentrated in the fourth ward. Poverty is present in the homes and finds expression in the stunted growth and undernourished bodies of the school children from this ward. This is the one ward within the city which has within its borders no church, nor school, nor playground."<sup>105</sup>

\* \* \* \* \*

99. "A lodging fit for a human being is the first requirement for the bodily and mental welfare of the family; it is the prerequisite for a well-regulated family life, and for the rearing of the children to be moral men and women. The improprieties resulting from the exigencies of insufficient lodgings are innumera-

---

<sup>104</sup> *Ibid.*, pp. 41-2.

<sup>105</sup> Burgess, E. W., "Juvenile Delinquency in a Small City," *Journal of Criminal Law and Criminology*, (1915-1916), January, 1916, Vol. VI, pp. 725-6. (A study of 52 juvenile court cases of a city of 12,000 inhabitants in a rural state, May, 1912, to April, 1914.)

ble, and this condition is an inexhaustible source of crime, prostitution, and vice of every kind.'"<sup>106</sup>

\* \* \* \* \*

100. "In the third place, we must name as a cause of the demoralization in youth bad housing conditions. One of the most pronounced characteristics of the child is his propensity to imitate. Hence it follows that the fact that a whole family must live and sleep in one or two rooms has the most harmful consequences for the sexual morality of the children. Sexual life has no longer any secrets for the child of the poor classes at an age at which this life is still a thing unknown to the children of the well-to-do classes." p. 334.

"What is often lacking besides is space to place a sufficient number of beds, or even the means of procuring them. In a great number of cases children of different sexes must sleep together in one bed, or even with adults. It also often happens that the inhabitants of these already insufficient dwellings are obliged to take night lodgers. There are the following percentages of dwellings with lodgers: In Leipzig, 17.5; in Breslau, 12.5; and in Berlin, 15.8. In Vienna 6.4 per cent of the population are night lodgers, and in Berlin 6.1 per cent.

"It goes without saying that among these persons lodging together there are some who are demoralized and dangerous to children." p. 335.<sup>107</sup>

\* \* \* \* \*

101. "During the period of this investigation 1,172 different vice resorts were found in 575 tenement houses at separate addresses in Manhattan . . . . The conditions in many of these tenements are scandalous and demoralizing to the last degree. Children grow up in them amid unsanitary conditions, with bad air and light, wearing clothes which do not keep the body warm, eating food which does not nourish, sleeping in crowded rooms—brothers with sisters, daughters with fathers—dressing and undressing in the presence of boarders or distant relatives, and witnessing sights never meant for the eyes of innocence. And, if

<sup>106</sup> Bonger, W. A., *Criminality and Economic Conditions*, Boston, Little, Brown and Company, 1916, pp. 241-2, (A critical analysis of literature and data pertaining to the relationship between crime and economic conditions.) (Quoting Hirsch, *Verbrechen und Prostitution*.)

<sup>107</sup> *Ibid.*

this were not enough to complete the moral breakdown, the prostitute creeps in like an infectious disease and spreads her degrading influence—often without the least effort to conceal her vocation.”<sup>108</sup>

\* \* \* \* \*

102. “The house is very largely the standard of the neighborhood. It is the neighborhood social unit. It certainly standardizes the family. Of course, the family unmakes the house, but on the other hand, the house unmakes the family. It is the mould into which that mobile, little life of the new-born and the growing child is cast. I don’t see how a child can grow normally in an abnormal house. Think of the possibility of maintaining the blush of modesty when the houses in the great tenement house regions have toilet features that are not only disgusting but indecent and immoral. Think of the lack of space for even that degree of privacy which is necessary for the maintenance of modesty!”<sup>109</sup>

\* \* \* \* \*

103. “What has the general condition of the home to do with juvenile delinquency? The investigators noted conditions found in 79 homes in such a way that they may be classified roughly as ‘bad’ and ‘good’ in regard to the physical surroundings, with especial emphasis on cleanliness and comfort rather than on mere ugliness and disorder. Doing this we may call 35 of the homes noted ‘good’ and 44 ‘bad’—considerably more than half. And dividing them by classes of offense we find the highest proportion of good homes among the sex offenders, the lowest among the child offenders against property.”<sup>110</sup>

\* \* \* \* \*

104. “It is patent that housing is a primary need and, as such, is of paramount importance. To improve housing conditions is to influence the standards of living favorably. Higher standards

<sup>108</sup> Kneeland, G. J., *op. cit.*, p. 25.

<sup>109</sup> Taylor, G., “The House and the Neighborhood,” *Housing Problems in America* (Proceedings of the Conference of the National Housing Assn., (1917), New York, The Association, 1917, p. 306. (Founder and resident warden, Chicago Commons Social Settlement (1894- ); sociologist and experienced settlement worker.)

<sup>110</sup> Claghorn, K. H., “Juvenile Delinquency in Rural New York,” *Children’s Bureau Publication No. 32*, Washington, U. S. Government Printing Office, 1918, p. 24. (Study of conditions of 144 families of 185 delinquent children. Smallness of sample limits value of study.)

of living, in turn, advance public welfare and decrease physical and mental defects and diseases and raise the moral qualities essential for effective citizenship. Poor housing breeds disease and crime; disease and crime lower potential earning capacity, with consequent inability to pay for hygienic surroundings; thus a vicious circle is established." <sup>111</sup>

\* \* \* \* \*

105. "Mental health finds itself threatened by congestion, lack of privacy, impaired opportunity for home study, and the crowding of family life, with the numerous strains due to faulty physical surroundings. The moral health of a community merits greater attention than has been given, and is closely linked up with problems of room congestion, darkness, dampness, a lack of bathing and toilet facilities and the general unattractiveness so common in the homes and dwellings of those with limited income." <sup>112</sup>

\* \* \* \* \*

106. "From the broadest viewpoint of public health, the state of the family income should not be permitted to jeopardize communal welfare. The financial weakness should not be penalized by a further impoverishment, that of health. The interests and health needs of the community should serve as a powerful force to bring about a finer type of housing than has thus far been developed for the masses. The relation of housing to health comprises various factors influencing the physical, mental and moral development of the family and family life. Whatever benefits each unit of the family inures to the advantage of the public. Housing is not to be regarded as a simple matter of personal selection but its minimal standards should be an item of public concern. In its broadest sociological aspect, housing is a determiner of personal, family and communal health." <sup>113</sup>

\* \* \* \* \*

107. "Over a large extent of London, then, the poor districts seem the more criminal." p. 72.

<sup>111</sup> Wile, I. S., "Sociological Aspects of Housing," *American Journal of Public Health*, April, 1920, Vol. X, p. 330. (Figures mortality rate on basis of rentals for Manchester, N. H.; Brockton, Mass.; theories of Osler and Williamson concerning housing and tuberculosis; Porter's *Elements of Hygiene and Public Health*.)

<sup>112</sup> *Ibid.*, p. 329.

<sup>113</sup> *Ibid.*, p. 328.



"The highest coefficient of all is that for the correlation between juvenile delinquency and overcrowding, namely, .77." p. 74.

"It is in the poor, overcrowded, unsanitary households, where families are huge, where the children are dependent solely on the state for their education, and where the parents are largely dependent on charity and relief for their own maintenance, that juvenile delinquency is most rife." p. 75.<sup>114</sup>

\* \* \* \* \*

108. "Taking all London borough by borough, the correlation between overcrowding and juvenile delinquency is a high one: The coefficient is .77, a figure larger than that obtained from any other social comparisons made in the table (see pp. 74-5). With the smaller group of fully analyzed cases, taken family by family and contrasted with the average London household, the coefficient of association between the same two features works out at no more than .21. Thus, although juvenile delinquents usually come from overcrowded neighborhoods, they do not necessarily come from overcrowded homes. The difference between delinquents and non-delinquents from the same social class, though appreciable, is smaller still. To state, therefore, that among delinquent families overcrowding occurs twice as often as it does among London households generally, is to convey an unfair implication. Compared with homes from the same social level, overcrowding is but 1.32 times as frequent. Hence it is clear that much must depend upon the mode in which each one reacts to the inadequate conditions under which he is housed and has to live." <sup>115</sup>

\* \* \* \* \*

109. "Low coefficient of association found with overcrowding. An intensive study was made of all juvenile court cases in one of the areas and it was found that there was no more overcrowding in the homes from which delinquents came than in other homes in the community. The coefficient of association was negligible." <sup>116</sup>

<sup>114</sup> Burt, C., *op. cit.*

<sup>115</sup> *Ibid.*, p. 85.

<sup>116</sup> Burgess, E. W., *The Urban Community*, Chicago, University of Chicago Press, 1926, p. 163. (Quoting from Elmer, M.C., "Maladjustment of Youth in Relation to Density of Population," a short paper for the Proceedings of the American Sociological Society, 1927, based on data gathered for a study of factors contributing to juvenile delinquency in the Twin Cities of Minnesota.)

110. "Bad housing conditions are generally accompanied by conditions of poverty, ignorance, malnutrition, or evil associations. Attempts to demonstrate statistically the influence of the dwelling upon morality, like that of Dr. E. Laspeyres in his *Der Einfluss der Wohnung auf die Sittlichkeit*, are wholly unconvincing. We may, however, continue to agree with William Adrian Bongers that, in spite of the difficulty of distinguishing good conduct from bad, and of separating the effect of bad housing from other influences operative at the same time, 'there is a relationship between housing and conduct.' " <sup>117</sup>

\* \* \* \* \*

111. "It may, however, still be reasonably argued:

1. That bad housing conditions may reduce the physical health of members of the household;
2. That by reducing health, they may reduce resistance to temptation;
3. That housing conditions may be directly conducive to contamination of the moral life;
4. That overcrowding, discomfort, lack of privacy, and improper facilities for home life may drive the members of the family to spend their leisure away from the home, which for many inevitably means subjection to another group of unwholesome influences." <sup>118</sup>

\* \* \* \* \*

112. "The moral life of the individual is unquestionably affected by his physical health. As Professor MacCunn has shown in his *Making of Character*, good health is a prime condition of 'practical energy.' 'A weak or sickly body is a grievous moral disability, in so far as by narrowing the range of contact with life it stunts the character.' Such lack of energy as we have seen may be caused by housing conditions, may be an important factor in producing that physical inferiority in certain persons among our criminal population which Charles Goring emphasizes in his statistical study entitled *The English Convict*. It should be remembered, however, that the latter study deals with a specialized group of the criminal population. Though it is difficult to demonstrate this point, it seems more probable that housing conditions, by reducing physical energy, may reduce, at the same time, the moral energy of individuals to resist the opportunities for evil which slum conditions so generally offer. Doubtless it is usually

<sup>117</sup> Ford, J., *op. cit.*, p. 177.

<sup>118</sup> *Ibid.*

the marginal individual whose moral training has not been good and whose moral standards are therefore not high who is thus tempted over into antisocial behavior.”<sup>119</sup>

\* \* \* \* \*

113. “Overcrowding is an outstanding condition in the tenement life of our industrial population. Surveys of housing conditions made in more than seventy American cities have shown it to be a factor present in each. It takes two main forms: Either the crowding of large families into a tenement of two or three rooms, or sometimes in a single furnished room; or else the taking of lodgers to live with the family in quarters too small to make privacy possible. Frequently, this means that children of both sexes have to sleep several to a bed or in the same room or bed with their parents, or in the same room with lodgers. This almost inevitably means that there can be no provision for privacy or decency, and results in sexual precocity and in many cases promiscuity which may, of course, in time lead to a criminal record.

“There is probably no one correlation between housing conditions and the violation of our criminal statutes as important or as serious in its social consequences as this.”<sup>120</sup>

\* \* \* \* \*

114. “Somewhat less tangible but of unquestioned significance is the effect of home discomforts upon the conduct of the individual. To return from school or from the day’s work to a dwelling of three or four dark, malodorous and crowded rooms, invaded by the noises of brawling neighbors, crying children, and the rumbling of passing traffic, and then to find nothing of beauty or cheer, no convenient place to read or play or entertain one’s friends is likely to lead either to sullen indolence or to profound discontent. Escape is possible, however, for those whose spirit is not yet broken. It is the usual recourse of the adolescent boy or girl, if not of the parents. So from the physical and mental suffocation of the tenement they thrust themselves upon the streets and into the excitements which the night-life of the city may offer to persons of their interests and backgrounds. This ‘expulsive factor’ of bad housing drives the individual to the streets where he is confronted by the agents of commercialized recreation, drink

<sup>119</sup> *Ibid.*, p. 178.

<sup>120</sup> *Ibid.*, pp. 178-9.

or vice. Reduced as he is in physical and moral resistance by the condition of the dwelling which he calls home and obsessed with a justifiable desire for gayety and adventure and release from the thralldom of intolerable circumstance, it is scarcely strange if he succumbs to moral hazards and becomes involved in socially undesirable or antisocial activity.”<sup>121</sup>

\* \* \* \* \*

115. “Unquestionably some, but not all of the slum dwellers who violate our laws, would not do so if through our public housing policy we should succeed in providing them with decent homes. Very little evidence, however, has yet been assembled to vindicate this statement. There is useful material in Dr. Arthur H. Estabrook’s *Study of the Jukes* in 1915, in which he demonstrates that the Juke children who are removed from poor living conditions and transferred to foster homes of a better type are apparently averaging better than the stock from which they came. Further studies of this sort are very necessary, but it should be borne in mind that the housing factor is not the sole factor involved in the improvement. The Municipal Corporation of Liverpool, England, has somewhat more convincing evidence of moral betterment through better housing as it has, over a long period of years, placed in its new housing developments the very same families which it has dishoused in its slum demolition schemes. They report a surprising improvement of the habits of such families after they are transferred to better housing conditions and a notable reduction in both alcoholism and criminality.”<sup>122</sup>

\* \* \* \* \*

116. “Another condition in the home contributing to delinquency is overcrowding with consequent confusion. . . . The connection of this fact with delinquency is to be seen in the lack of discipline in the case of the oldest, the necessity of the oldest contributing to the support of the family, and therefore being subjected to the conditions already cited making for delinquency in those cases where the children have to go to work. On the other hand, where the family is large and the house crowded, there is less chance for proper training of the younger children, especially if the mother has to go out to work. Case after case is found in these crowded

<sup>121</sup> *Ibid.*, p. 179.

<sup>122</sup> *Ibid.*, pp. 179-80.

homes where younger children have been so neglected that they slept away from home in all kinds of places.

"Frequently these cases of crowded homes are the result of the marriage of two people, each with a family of children. When, therefore, overcrowding interferes with that individual care and attention which the home should provide, it makes for delinquency."<sup>123</sup>

\* \* \* \* \*

117. "Overcrowded home a factor in 26.5 per cent of cases studied."<sup>124</sup>

\* \* \* \* \*

118. "The precinct, having, on this basis, the greatest juvenile delinquency rate, was chosen for study. Its rate was 4.29 per 1,000 population, a ratio five times the average for Brooklyn as a whole. This precinct is a part of a local community. Lying south of it is a precinct which has a delinquency rate of 6.8, a rate which was subsequently increased by more accurate Children's Court and Police Welfare Department statistics. Both precincts form a natural geographical area, which has been a unit in Federal Census enumeration." p. 376.

"It is almost uniformly wretched along one portion of the water-front. In the whole section from the commercial district on the north to the water-front on the south, with the exception of a few blocks, only three units under new tenement house law have been built since 1901. There are few bathtubs and many houses still have toilets in the back yard. Coal-stove heat and cold running water is general. The average rental is \$4.00 to \$4.50 per room per month. One section in the area is relatively better." p. 377.<sup>125</sup>

\* \* \* \* \*

119. "A good deal of the immorality of the . . . district, located in the South Side bad-lands, is explained by the terrible housing conditions. There are many vacant lots and open spaces

<sup>123</sup> Gillin, J. L., *Criminology and Penology*, New York, The Century Company, 1926, pp. 212-13.

<sup>124</sup> "Causes of Sex Delinquency in Girls," (Review of discussion by Burt, C., in *Health and Empire*, December, 1926), *Journal of Social Hygiene*, February, 1927, Vol. XIII, p. 111. (Study of 113 cases intensively and 179 from case histories—a total of 292 cases.)

<sup>125</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Delinquency in a District of Kings County," *Report of the New York Crime Commission*, 1927, Albany, 1927.

between the structures, but the congestion within the house is almost unbelievable. This is due to the attempt to reduce rents by subdividing apartments and by taking roomers and boarders." p. 243.

"This crowding results often in forcing the children of a household to live and sleep with adults and roomers in intimate relations that are very demoralizing in their effects. The children also see their parents and other adults disrobe. They often observe their parents in the sex relation. . . . Children living under such conditions early become inured to these things and fail to develop standards of decency and shame." p. 244.<sup>126</sup>

\* \* \* \* \*

120. "What did we find? In the urban areas, there was uniformly wretched housing. In the water-front area, with more than 200,000 population, only three houses under the revised Tenement House Law had been built since 1901. Most of these dwellings were without baths or central heating systems and the majority of them had toilets in the hall. The average rental, outside of the new law tenements, was between \$4 and \$4.50 per room per month. The average flat consisted of three or four rooms. People rarely moved as there are few flats to move to at these low rentals. Therefore, there is little spring or fall migration and very little shift of population. It ought to be said in explanation of our study of this district that it is one of the districts from which an unusual number of delinquents come." <sup>127</sup>

\* \* \* \* \*

121. "Consideration should be given to improving housing conditions in any program for the prevention of delinquency. Much could be done in this neighborhood through the cooperation of public and private agencies to develop better homes if local people and their friends were sufficiently interested. The State Board of Housing confirmed the findings of the Subcommittee with regard to housing in this area." <sup>128</sup>

<sup>126</sup> Thrasher, F. M., *op. cit.*

<sup>127</sup> Butcher, W. L., "Community Causes of Crime," *Proceedings of the Fifty-Eighth Annual Congress of the American Prison Association* (Kansas City, Mo., 1928), New York, The Association, 1928, p. 31. (Summary of findings of Subcommittee on Causes and Effects of Crime, New York State Crime Commission. Based on study of 201 persistent truants in New York public schools and 145 major offenders.)

<sup>128</sup> *Ibid.*, p. 43.

122. "There is no significant relation between the number of persons per room and severity of offenses. But in general, the group of 251 cases lived under conditions of housing congestion twice as great as the average poor in congested areas. Unspeakable congestion therefore must have had some relation to the truancy of this group, if not to severer offenses." <sup>129</sup>

\* \* \* \* \*

123. "Table XX shows no association between the size of the dwelling and the degree of criminality but brings out the fact that all of the members of this group live in decidedly congested quarters, the median number of rooms ranging from 3.1 to 3.5 per family." <sup>130</sup>

\* \* \* \* \*

124. "The degree of housing congestion among these 251 cases appears to be greater, however, than among the population in general in similarly congested areas. The State Board of Housing in its 1927 report quotes on page 45, a table showing the average number of persons per apartment in eight congested blocks on the Island of Manhattan. The average number of persons in the three-room apartments was 2.86, in the four-room apartments 3.82, and in the five-room apartments 4.12. The average number of persons per room is .95 in the three-room apartments, .95 in the four-room apartments, and .82 in the five-room apartments. Compared with these figures are those in Table XXI showing a median number of persons per room among the cases here studied of 1.7." <sup>131</sup>

\* \* \* \* \*

125. "In other words in the cases studied housing congestion is practically twice as great as in congested areas generally. Not only is congestion great but there is overcrowding even within the minimum standards set by the Commission of Housing and Regional Planning, which allows two persons to live in a two-room

<sup>129</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "From Truancy to Crime—a Study of 251 Adolescents," *Report of the New York Crime Commission, 1928*, Albany, 1928, p. 449. (Based on cases taken from the files of the Bureau of Attendance of the New York City Schools by an experienced research worker under the direction of the members of the Subcommission on Causes and Effects of Crime with Professor Raymond Moley, of Columbia University, acting in an advisory capacity.)

<sup>130</sup> *Ibid.*, p. 485.

<sup>131</sup> *Ibid.*

apartment, four in a three-room apartment, six in a four-room apartment, and eight in a five-room apartment.

"It can be said, therefore, that while the degree of criminality does not seem to be affected by the degree of congestion, nevertheless, this entire group of cases live under conditions of greater congestion than do the average poor. Congestion, therefore, would seem to have some association with truancy if not with more serious delinquency since all of these cases were at least truant."<sup>132</sup>

\* \* \* \* \*

126. "Table XXI which measures degree of housing congestion in terms of the size of the family in comparison with the size of the living quarters, also shows no such relationship, the median number of persons per room ranging from 1.6 to 1.7. In general, however, the entire group of cases came from areas of poor housing. Reference to the map showing the residences of the offenders brings out that point clearly to those familiar with housing conditions on Manhattan Island."<sup>133</sup>

\* \* \* \* \*

127. "The buildings of the area give an impression of infinite age and of slow decay. As a matter of fact, these slum structures are not really old, they are the tangible evidence of a very recent and very modern movement of exploitation. Forty-five years ago, there were few great tenement houses. The majority of homes were only one- and two-, possibly three-story buildings, sheltering only a few families. Many families owned their own homes.

"When the great flood of European immigration poured in, landlords began to tear down the small-family dwellings and erected the present-day rookeries to provide accommodations for poverty-stricken thousands. At the time these buildings were erected, there was practically no protective housing legislation, and in consequence, the resulting structures are monuments to inadequately regulated private enterprise. All of them are constructed without regard to ordinary human needs, and many of them had rooms without either light or ventilation.

"In 1900, the Tenement House Commission exposed these unbelievable conditions, and landlords were forced soon thereafter to modify their structures slightly to conform to the modest re-

<sup>132</sup> *Ibid.*

<sup>133</sup> *Ibid.*



quirements of the Tenement House Law of 1901. But so wretchedly were the old-law structures built, that no amount of tinkering has ever brought them up to even minimum standards of decent housing.

"Today in 1927, a large number of these structures still stand, in no vital way different from their appearance in 1900 except that they are older and probably more depreciated."<sup>134</sup>

\* \* \* \* \*

128. "In 1919, Governor Smith appointed the Reconstruction Commission, and called to its attention the permanent housing problem. This Commission, in 1920, made a study of a number of blocks in the borough of Manhattan. Four of the blocks were in the district surveyed in this report.

"The study disclosed that families were crowded together in dark ill-smelling apartments and were unable to find better quarters. Many landlords were taking no care of their apartments. Underpaid janitors neglected their duties. In some cases, there were no janitors and the stairs were never cleaned, except by the tenants. In every block were found ill-kept apartments, in fact, certain of them were not kept at all. They had been allowed to fall into decay. The roofs leaked, the plaster was falling off the walls, and the stairs needed repair. The water did not run, the landlords refused to repaper or paint the dirty walls. The rubbish collected in the basements. Yet every apartment was full and the tenants were afraid to complain to the landlord for fear that he would dispossess them.

"The study disclosed further, that a great many of the houses in which the working people of New York live have come into the hands of absentee landlords or lessors. The latter are holding the property, very often only for a short time, with the idea of getting as much out of it as they can. They, at present, control the conditions of sanitation and upkeep of a large part of the homes of New York, concludes the study."<sup>135</sup>

<sup>134</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Environmental Factors in Juvenile Delinquency," *Report of the New York Crime Commission, 1928*, Albany, 1928, p. 610. (Area studied selected by means of statistics on residences of juvenile delinquents, published in the annual reports of the Children's Court of New York City, for the years 1920 to 1924, inclusive. The district selected, District 1 of Manhattan, has led the borough for the years 1920 to 1924 in extent of juvenile delinquency.)

<sup>135</sup> *Ibid.*, p. 611.

129. "The Subcommittee on Causes, concerned as it is with the problem of crime prevention, has a legitimate right to question the relation of bad housing to bad citizenship. The reports of the State Housing Commission emphatically link the two. In its most recent report, that of March 9, 1927, it states, p. 45:

"The State Board of Housing has been impressed by the amount of overcrowding and congestion which appears to be a part of the permanent living conditions of New York City. The temporary congestion due to the emergency of 1920-21 has unquestionably passed, but there still remains a condition which is extremely dangerous from the physical and the moral point of view. . . ."

"Justice Edward F. Boyle, of the Children's Court of New York City, writing to the State Housing Commission on December 1, 1925, stated:

"Reports to me show that the evil of doubling up families in small apartments, far from abating in two years, has grown steadily worse; that the male lodger is in the small home in large numbers than before with all the attendant degrading potentialities to family life and morals; that congestion is growing and spreading; that families are not only crowding themselves with lodgers but in many cases there is a double shift, night and day, of lodgers. The peril to health and morals pointed out two years ago is not lessened. If anything, the lapse of time has rendered the situation more acute in these respects." <sup>130</sup>

\* \* \* \* \*

130. "The relation of bad housing and delinquency is indicated in the following studies:

"In 1920, the Reconstruction Commission, with the assistance of social settlements, studied four blocks in the area. These were regarded by that Commission as being typically bad blocks. Whether these blocks of exceptionally bad housing have been productive of unusual delinquency, is a question of great interest. The indication is that they have been. In 1926, the average number of delinquent children per block, for the area studied, was approximately four.

"In the four blocks examined by the Reconstruction Commission the number of delinquent children in 1926, were:

Block	No. of delinquents	Block	No. of delinquents
1	8	3	23
2	6	4	4

<sup>130</sup> *Ibid.*, p. 612.

"The delinquency map for 1926 shows another feature of great interest. 'A' street, dingy, dark and dirty, a portion of which has since been widened, is one of the worst streets in the whole area. Its dark houses surmounted by an elevated structure that keeps out sunlight and murders sleep, are nests of delinquency. In four small blocks, 58 boys and girls were reported to private case work agencies, Police Welfare Lieutenants, and to the Children's Court for misconduct in 1926."<sup>137</sup>

\* \* \* \* \*

131. "Home life cannot take place unless there is actually a home in which it may take place. People who visit the congested portions of the city remark on the fact that the streets seem to be the place for social intercourse. This state of affairs is directly linked up with the breakdown of the home. People are forced to live their social lives on the street for lack of space to live them indoors. The home, therefore, becomes a place where one sleeps and eats meals.

"The problem of directing the delinquent child so that he will become more attached to his family and to the family's home life can hardly be attacked until at least the child is provided with space within the home in which he may play when he is at home. It is a truth not usually realized by people living in large apartments, that a mother of half a dozen children living in a two- or three-room tenement flat, is more glad than sorry to have her children out of the way and on the street so that she may accomplish her housework in peace.

"The handicaps under which these parents must raise their children is illustrated in the following statement made by a woman engaged in individual work with girls, in the area under study:

"The abnormal congestion in this area gives children a variety of experiences that are utterly unknown to the middle-class boy and girl living in the average residential neighborhood. Children of very tender years have all the sophistication of adults and show it in their oldish faces.

"Boys and girls there are more susceptible to sex knowledge than in other sections because of the utter freedom of sex behavior. Children living with their parents in two and three rooms are often made painfully aware of sex relations. Case work among these children brings out numerous instances of this. Children learn everything about birth at a very early age. Children will even occasionally assist the midwife at childbirth, handing towels and basins of water."

---

<sup>137</sup> *Ibid.*, p. 612.

"The breakdown of the home as a place for the child is tragic, but probably more tragic is the breakdown of the home as a place of courtship, due almost entirely to the housing situation. The average girl in this section has no place to entertain her Americanized beau. She cannot take him to the kitchen, or into the combined living room and bedroom unless she wishes to disturb the family slumbers. Therefore, she meets him on the street corner or at the movies. . . .

"The tendency of the girl to avoid the drab congestion of the home meets with disapproval. The European has definite ideas on the amount of freedom his daughters should have. Daughters of some immigrant groups are not allowed to visit social centers at night, or to go out elsewhere unless they are accompanied by married sisters or by other older persons. In consequence, they use all sorts of ruses to circumvent their parents' wishes, and the street corner becomes the rendezvous."<sup>138</sup>

\* \* \* \* \*

132. "Thrasher, author of *The Gang* found decided concentration of boys' gangs in these areas of delinquency. The outlying residential communities of single-family dwellings and high-class apartment buildings produce relatively few cases of delinquent children."<sup>139</sup>

\* \* \* \* \*

133. "Bad housing undoubtedly has a distinct bearing on juvenile delinquency rates. In four blocks of poor housing studied in 1920 by the State Reconstruction Commission, the delinquency rate was equal to the average for the area in only one block and above average in the others.

"In four small blocks of wretched housing, under an elevated structure, 58 boys and girls, or nearly four times the average for the area, were reported as conduct problems during 1926.

"The five blocks productive of the greatest amount of juvenile delinquency in 1926 are blocks either of bad housing construction or bad sanitation, or both, according to the report of the Tenement House Department to the Subcommittee on Causes. In these five blocks, 161 out of the 175 tenement buildings are old-law structures, constructed prior to 1901, of the type unqualifiedly condemned as unfit for human habitation. Private demolition is

<sup>138</sup> *Ibid.*, pp. 615-16.

<sup>139</sup> Shaw, C. R., and Myers, E. D., *op. cit.*, p. 659.

going on at a rate that would require 200 years for the replacement of these houses by modern structures.”<sup>140</sup>

\* \* \* \* \*

134. “The pressure falls particularly heavily on families where there are many children. Such often ‘cannot obtain respectable quarters, and then become degraded by their surroundings.’ This is mentioned often. ‘It is almost impossible to find room, and when people have to move they roam about like hunted dogs.’ The Guardians are often appealed to for accommodation. Special instances of overcrowding appear frequently on our notes, such as ‘father, mother and eight children in one room.’ In another instance, ‘Man, and wife, two sons ages twenty-seven and twenty-one, and two daughters ages twenty-one and eighteen,’ all living in one room. Again, an old woman, her daughter and grandson, and in two other cases, man, wife and five children occupied one room. Such instances are by no means extreme or unusual.

“With single people ‘Box and Cox’ arrangements are not unheard of. ‘Is it right,’ a decent woman said (speaking to a deaconess), ‘that I should have to sleep in a bed that a man sleeps in during the day?’ ‘Crowding,’ says one of the clergy, ‘is the chief obstacle to spiritual influence. Decency, modesty, cleanliness, etc., are made impossible, but,’ he adds, ‘so full are the people of natural virtue, that with better housing there would be no difficulty.’

“Who, reading the extracts given above and those which follow, a generation after they are written, can fail to realize their continuing truth. They sum up for us not what was said then but what is said now, and teach us that here we are facing a task no spasmodic effort can complete, but one to which consistent and persistent energies must be applied.

“‘Drink is fostered by bad houses.’ ‘Crowded homes send men to the public-house.’ ‘Crowding the main cause of drink and vice.’ ‘Incest is common, resulting from overcrowding.’ ‘Religion has failed, education has done something, but good homes lack.’ ‘The root of evil is deficient house accommodation.’ These are but a few out of many expressions of opinion that could be cited.

<sup>140</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), “A Study of Crime and the Community,” *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 190.

"Something has been done by more effective administration to introduce a higher standard of life, especially as regards crowding. 'Overcrowding,' says one of our witnesses, 'is the great cause of degeneracy, but there is less of it than formerly, owing to a higher standard of requirement,' and we have seen that this is borne out by the census statistics.

"But in spite of this general improvement the evil has become worse in places, and of these, naturally, one hears most. In one street in Southwark where there are 'many single-room tenements,' it is said that there are eight hundred people living in thirty-six houses. 'There is a tendency in this neighborhood' (we are told) 'to subdivide two-room holdings into single rooms, under a resident landlady.'"<sup>141</sup>

\* \* \* \* \*

135. "A family handicapped economically, compelled to live under bad housing conditions, may have a more difficult task as a social educator than a family not so handicapped. But it has been seen that the literature relating to this subject is inconclusive. The families of delinquents are to be found in all social and economic strata. To some extent the lowest economic strata do furnish an undue proportion of delinquents, but their contribution to the delinquent population is not very much greater than what might be expected from their representation in the general population."<sup>142 143</sup>

## 2. BROKEN HOMES—PSYCHOLOGIC BASIS

136. "To recapitulate, we have seen that the delinquency factors under physical causes can be successfully opposed by a well-organized home; that social causes act only on the children not sufficiently protected by parental guidance; that economic forces as they affect the child come only through the weakness of the guardians; the child depends and has a right to depend upon his parents for support and the necessities of life. We have seen

<sup>141</sup> Barnes, H., *The Slum, Its Story and Solution*, London, Orchard House, Westminster, P. S. King and Son, Ltd., 1931, pp. 235-6. (Quoting from Charles Booth's inquiry into "Life and Labour" in London, 1886-1900.) (A history of political legislation and social movements in England to remove the slum, from 1838 to 1931.)

<sup>142</sup> Ploscowe, M., *op. cit.*, pp. 94-5.

<sup>143</sup> The following references also cover the subject of "Physical Basis—Bad Housing": Numbers 11, 13, 14, 29, 32, 56, 85, 86 and 87.

that all normal factors of dispositional and physiological causes can be turned not merely against delinquency but be made factors for good by parents who are not themselves weak. And the abnormal factors are either transmitted by defective parents or acquired through lack of wise care, being sometimes allowed to develop because the guardians lacked initiative. In case of accidental misbirth, delinquency could be prevented by the well-organized family. It is almost universally true that the causes named individual are yet mostly due to the inefficiency of parent and home, when they become active in producing offenses. And finally, we have seen that the sources tabulated under family causes spring most directly of all from defective home conditions. Justly counting the parent as the essential part of a home, we may, therefore, include his defects under those of the home, and conclude that all the delinquency factors, because they become operative only in a weakened home, may be summed up in one great cause which may be named, the non- or semi-functionary home."<sup>144</sup>

\* \* \* \* \*

137. "It is easily evident that practically all the sources of moral contamination to which girls are exposed find an approach through some failure or inadequacy in home and family life; and that the home, therefore, marks the chief point at which constructive social work must center."<sup>145</sup>

\* \* \* \* \*

138. "Of the 42 girls (cases studied at the Boston Psychopathic Hospital) 25 developed the same delinquencies as were present in the home; 17 developed different delinquencies than were actually present in the home, but the neighborhood environment easily afforded the stimulation and development of such delinquencies. They received little instruction or proper bringing up and were allowed to go out in the neighborhood where the influences were bad."<sup>146</sup>

<sup>144</sup> Travis, T., *The Young Malefactor*, New York, Thomas Y. Crowell and Company, 1908, pp. 182-3. (Available statistics combined with personal opinion.)

<sup>145</sup> Woods, R. A., and Kennedy, A. J., *op. cit.*, p. 66.

<sup>146</sup> Dodge, P. L., "Environment as It Influences the Development of the Juvenile Delinquent," *The American Journal of Psychiatry*, April, 1922, p. 630. (Paper read at the Seventy-Seventh Annual Meeting of The American Medico-Psychological Association, now The American Psychiatric Association, Boston, 1921.)

139. "Nevertheless, a recent statistical study of over 7,500 boys in reformatories in the United States affords us a substantial basis of fact with respect to some phases of the home life factor, at least, from which we are justified in drawing some inferences.

"Of these more than 7,500 delinquent boys, a trifle more than 50 per cent came from 'crippled' families; that is, families in which one or both parents were dead or otherwise separated permanently from their children. This is the more significant in view of the fact that in the entire country, according to reliable estimate, only about 25.3 per cent of the children of 18 years of age and under are attached to such 'crippled' families. If the 'crippled' condition of the family were of no importance in this connection, and if all other factors were equal, only 25.3 per cent instead of more than 50 per cent, of these boys should come from such homes.

"The proportion of fatherless boys to motherless boys in these institutions is 17.9 to 12.8. In the population at large the corresponding proportion is only 15.1 to 6.4. In other words, the ratio of delinquency in these families is larger than should be expected in families in which the condition we have described obtains if the condition were not a causative factor in relation to delinquency. Apparently, in respect to the behavior of boys, the father's influence is greater than that of the mother.

"Furthermore, 13.7 per cent of nearly 6,000 delinquent boys (5,856) have come from families that have been 'crippled' by divorce, desertion or separation. But, according to estimates, only 2.4 per cent of the total child population have been affected by these conditions. . . .

"If the 'crippled' family, in the sense in which the term is used, is a prolific source of delinquency, it is a fair assumption that certain other families are equally so; we mean families in which the parents, though living and abiding under the same roof with their children, are neglectful of their offspring and even ignorant of their needs. Of course, in a situation in which father and son do not and cannot work together daily, the son is, as a matter of course (assuming that the father is intelligent and well disposed) shut away from many stabilizing conditions that redound to the profit of many youths who are more favorably conditioned in this respect."<sup>147</sup>

<sup>147</sup> Gault, R. H., "Report of Committee on Origin of Crime," *Fourth Annual Report of the Chicago Crime Commission*, Chicago, 1923, pp. 39-40.



140. "In general, it is clear that the children who get into the juvenile courts come, in more than fair proportions, from homes that would be ranked as poor or very poor, but that none of the children in some homes of that kind are delinquent and not all of the children in other homes of that kind are delinquent, and that many delinquent children come from homes that are ranked as good or very good."<sup>148</sup>

\* \* \* \* \*

141. "The child is so plastic that a supremely efficient home and community could keep him from delinquency. On the other hand no child, by nature, has such a law-abiding tendency that he could not possibly be made a criminal in a supremely bad home."<sup>149</sup>

\* \* \* \* \*

142. "Of all environmental conditions, indeed of all the conditions whatever that find a place in my list of causes, the group showing the closest connection with crime consists of those that may be summed up under the head of defective discipline. Such features are encountered five times as often with delinquent as with nondelinquent children; and the coefficient of association soars to .55." p. 92.

"These, then, so far as they can be classified at all, are the chief conditions met with in the young delinquent's home. The actual figures for their frequency have been presented in the tables above. Altogether, vice in the home was noted in 26 per cent of the cases; poverty with its concomitants in 53 per cent; defective family relationships in 58 per cent; and defective discipline in 61 per cent. Poverty, however, as we have seen, together with defective family relationships, was noted with much frequency among the nondelinquent; hence, they have less significance than might at first be thought. On the other hand, among the nondelinquent, vicious and ill-disciplined homes were comparatively rare, the proportions being only 6 and 12 per cent respectively. As before, we can take the two sides into account by contrasting, not the raw percentages, but the calculated coefficients of association. The order of importance is then somewhat changed. The coefficients are: For poverty, .15; for defective family relationships, .33; for vici-

<sup>148</sup> Sutherland, E. H., *op. cit.*, p. 140.

<sup>149</sup> *Ibid.*, p. 139.

ous homes, .39; and for defective discipline, .55. The figures speak for themselves." pp. 97-8.

"From this general survey of environmental origins, both outside the home and within it, one main conclusion can be drawn. It is clear that *the commonest and the most disastrous conditions are those that center about the family life*. In one respect or another, among what is by far the majority of my delinquent cases, the child's domestic circumstances are demonstrably inimical." p. 178.<sup>150</sup>

\* \* \* \* \*

143. "There is need of more farm homes for the city boy who has broken society's conventions in a hunger for freedom which the city environment forbids to him. These homes should be philanthropic enough to give the boy a chance who has technically been 'in trouble.'" <sup>151</sup>

\* \* \* \* \*

144. "We see that 72 per cent of the homes, where normal parental conditions exist, are producing 45 per cent of the delinquents; while 28 per cent of the homes, where parental conditions are abnormal, are producing 55 per cent. In other words, according to our study, the ratio of delinquents produced by abnormal homes is 3.11 times as great as that of normal homes. . . .

"The family performs a vital function in the social order, training the children and implanting the group mores and respect for the group institutions in their minds. When the family is broken in any way or rendered inefficient by estrangement, it cannot properly perform these functions, and the result is apparent in the lives of the children." <sup>152</sup>

\* \* \* \* \*

145. "However, it cannot be assumed that because both parents reside under the same roof that the home is a normal one. Too

<sup>150</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925.

<sup>151</sup> Timmons, B. F., *Contributing Factors in the Delinquency of 4 Columbus Boys* (Manuscript, M.A. Thesis for Ohio State University), Columbus, Ohio, 1926. (Four delinquent boys in Columbus, Ohio, of normal mental, physical, and hereditary background, selected from the files of the Bureau of Juvenile Research. Personal investigation, in addition.)

<sup>152</sup> Bushong, E. M., "Family Estrangement and Juvenile Delinquency," *Social Forces*, September, 1926, Vol. V, p. 83. (Study of 1,000 cases of juvenile delinquency in Marion County, Indiana.)

frequently in these cases when both parents are living, one or both may be addicted to the use of liquor, may be immoral, or refuse to provide for or support their dependents.

"The effects of bad family life in the making of delinquents cannot be stressed too strongly, and by bad family life is meant a family in which there is constant bickering and fighting, . . . no sympathy."<sup>153</sup>

\* \* \* \* \*

146. "The important point is that a family tradition of lawlessness and vice, and the attitudes evolved in the homes where such lawlessness and vice are common experiences, are not conducive to a habit of mind and behavior that ordinarily makes for decent citizenship." p. 112.

" . . . Over 50 per cent of the families of ex-inmates of the reformatory had an official court record for various offenses prior to the imprisonment of the young men studied. In addition, 30 per cent of the families were delinquent, although there was no official record of that fact." p. 121.

"In 60 per cent of the cases, an abnormal, often unhealthy, home situation existed by virtue of the long or complete absence of one or both parents, and in 70 per cent of these cases the rift in the home occurred when our young men were fourteen or under." p. 122.

"Only 94 (18.5 per cent) of the men had not left the parental home at all prior to sentence to the reformatory, or had left for brief periods or causes not comprising a serious breach in the parent-child relationship." p. 137.<sup>154</sup>

\* \* \* \* \*

147. "Save for the significant relationship between juvenile severity of offense and degree of criminality in the home background, the findings of this study are negative. If the findings are valid, they should be of service in checking loose generalizations on the causes of crime. For they indicate that no single factor stands out from among the rest as a crime cause, save criminal family background, which in turn must undergo analysis

<sup>153</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "Individual Studies of 145 Offenders," *Report of the New York Crime Commission*, 1928, Albany, 1928, pp. 323-4.

<sup>154</sup> Glueck, S. and E. T., *op. cit.*

in terms of factors influencing the other members of the household to commit crime." <sup>155</sup>

\* \* \* \* \*

148. "Families are 'doubled up' in small apartments to an extent which was never before experienced in this city. Some of the results of this practice are too shocking to describe. The inevitable result, in general, is a serious lowering of moral standards." <sup>156</sup>

\* \* \* \* \*

149. "Where the broken home has been said to be an important factor in delinquency, it is usually attributed to the fact that in such situations there is a minimum of parental supervision over children. The presence of a step-parent will not necessarily solve this difficulty, but may in turn raise new problems of adjustment. The efficiency of the home in shaping the attitudes of the growing child is impaired, and thus it offers a less effective barrier to the formation of patterns of delinquent behavior." <sup>157</sup>

\* \* \* \* \*

150. "All that can be legitimately said is that delinquents do appear to come from broken homes to a greater extent than non-delinquents, but the difference is much less than has been generally supposed. . . . the lack of adequate family discipline resulting from the broken home may have been an important contributory factor." <sup>158</sup>

\* \* \* \* \*

151. "In conclusion, therefore, it may be stated that while the literature on social factors does not provide completely unassailable data, it does point out specific conditions which may well be considered contributory factors in criminality. There seems to be no escaping the conclusion that the family is fundamental; it is the state's first bulwark against the formation of antisocial tendencies. At present it seems that in the very places where the

<sup>155</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 326.

<sup>156</sup> "The Present Status of the Housing Emergency," *Report of the New York Commission of Housing and Regional Planning*, Albany, December 22, 1923, p. 82.

<sup>157</sup> Ploscowe, M., *op. cit.*, pp. 72-3.

<sup>158</sup> *Ibid.*, p. 95.

family inadequacy is apt to be the greatest, instead of offsetting the results, the community makes them worse." <sup>159</sup>

\* \* \* \* \*

152. "In the studies of the problem of juvenile delinquency, the family has received more attention than any other social institution. Particular emphasis has been placed upon family disorganization or the 'broken home.' It is quite widely assumed that the probability of delinquency is much greater among boys whose homes are broken by death of one or both parents, divorce, desertion or separation of parents, than among boys who live in unbroken families. Breckinridge and Abbott, in a careful study of the parental status of boys brought before the Juvenile Court of Cook County on petitions alleging delinquency during 1903 to 1904, found that of 584 cases 43.3 per cent lived in homes that were broken by death of one or both parents, desertion, divorce, or separation of parents, or commitment of one or both parents to an institution. As a result of a study of the parental condition of 7,598 delinquent boys confined in industrial schools in 31 states, Shideler found that 50.7 per cent came from broken homes. Slawson studied the marital relation of parents of 1,649 delinquent boys in four institutions in the State of New York, and reported that in 45.2 per cent of the cases the family was broken by the death of one or both parents, or by divorce, desertion, or separation of parents. From his intensive case studies, Healy reports that 49 per cent of the male recidivists which he studied in the Cook County Juvenile Court came from broken homes. It is not surprising that the frequency of broken homes for these various studies shows considerable variation, since there are marked differences between the series of cases considered. The study of Breckinridge and Abbott, which shows the lowest percentage of broken homes, was based upon a representative series of court cases; the studies by Shideler and Slawson were restricted to boys confined in institutions; and Healy's was limited to indictments. Thus the series considered in the various studies differed markedly both as to types of cases and as to the age distribution of the boys included." <sup>160</sup>

<sup>159</sup> *Ibid.*, p. 96.

<sup>160</sup> Shaw, C. R., and McKay, H. D., *op. cit.*, pp. 261-2.

**153. "Table XXXIII. Rate of Broken Homes in 29 Schools Classified on the Basis of the Rates of Delinquents in the Areas in Which the Schools Are Located**

Group I, areas with low rates of delinquents (0.0-4.4)		Group II, areas with intermediate rates of delinquents (4.5-8.9)		Group III, areas with high rates of delinquents (9.0 and over)	
Number of school	Rate of broken homes	Number of school	Rate of broken homes	Number of school	Rate of broken homes
1	16.0	1	20.0	1	20.2
2	17.0	2	21.9	2	23.0
3	17.6	3	23.7	3	23.5
4	17.9	4	25.4	4	25.0
5	19.5	5	29.1	5	25.2
6	29.8	6	29.6	6	26.5
7	33.3	7	30.2	7	27.6
8	35.3	8	37.3	8	29.9
9	45.9	9	52.0	9	37.1
				10	46.0
				11	53.0
TOTAL . . . . .	26.2		29.7		31.1

"From Table XXXIII it will be seen that the percentage of broken homes fluctuates very widely among the schools within each of the three groups of areas. In Group I, the range is from 16.0 to 45.9, in Group II from 20.0 to 52.0, and in Group III from 20.2 to 53.0. These variations indicate that there is no very consistent relationship between rates of broken homes and rates of delinquents. This fact is further indicated by a comparison of the rates of broken homes calculated for all of the schools within each group. In the areas with lowest rates, 26.2 per cent of the boys lived in broken homes, in the medium-rate areas 29.7 per cent, and in the high-rate areas 31.1 per cent. It will be observed that this variation is so slight that it might be reversed by the addition of one school with a high percentage of broken homes in Group I, and the addition of one school with a low percentage in Group III.

"The absence of a significant relationship between broken homes and rates of delinquency is further indicated by the low coefficient of correlation ( $0.19 \pm 0.12$ ) between the rates of broken homes

in each of the 29 schools and the rate of delinquents in the area in which the school is located. It will be noted that the probable error is more than one-half the size of the coefficient."<sup>161</sup>

\* \* \* \* \*

154. "It was found that the difference between the rates in the delinquent and the control group furnished a very inadequate basis for the conclusion that the broken home is an important factor in delinquency. This should not be interpreted to mean that the family is not an important factor in behavior problems, but that the broken home, as such, is not a significant measure of the importance of family life in the cases of delinquent boys appearing in the Cook County Juvenile Court."<sup>162</sup>

\* \* \* \* \*

155. "While the statistical data presented in Chapter IX failed to reveal a significant variation between the incidence of broken homes among male juvenile delinquents and a comparable series of school boys in the general population in Chicago, it should not be concluded that the family is not an important factor in the study of human behavior. These formal data do suggest the need for studying the more subtle and intangible relationships within the family group. Detailed case studies such as the one presented in this chapter suggest that the emotional tensions and conflicts within the family may be significant in determining delinquent behavior. At least such relationships appear to be important in the determination of personality problems, offenses against the home, and in the development of the child's fundamental attitudes and personality."<sup>163</sup>

\* \* \* \* \*

156. "The rates of broken homes among delinquent boys in the Cook County Juvenile Court and the rates of broken homes among boys of the same age and nationality in the school population are not widely different. . . . No consistent variation was found between rates of broken homes and rates of delinquents."<sup>164 165</sup>

<sup>161</sup> *Ibid.*, pp. 265-6.

<sup>162</sup> *Ibid.*, p. 284.

<sup>163</sup> *Ibid.*, p. 343.

<sup>164</sup> *Ibid.*, p. 392.

<sup>165</sup> For additional references on "Broken Homes—Psychologic Basis" see Numbers 5, 6, 12, 13, 14, 16, 18, 25, 26, 27, 28, 34, 36, 94, 99, 101, 105, 111, 113, 114 and 125.

## 3. ECONOMIC CONDITION OF HOME

157. "But examination of the economic status of the young malefactor reveals the following: Eighty-eight per cent of 179 homes of inmates of New York Juvenile Asylum had a per capita weekly income of three dollars or less; and 52.8 per cent of 1,824 households of the children attending the industrial schools of the Children's Aid Society of New York had an income of seven dollars or less per week for the whole household." <sup>166</sup>

\* \* \* \* \*

158. "The family sense of responsibility for the girl who goes to work is universally admitted to be greatly undeveloped and the majority of parents are careless concerning the place and conditions under which the daughter works. Bad influences are accepted as the responsibility of the boss or of government. At best, parents are only occasionally anxious or a little puzzled. The struggle for a living is so keen that everything else is unimportant. The vital question is that of putting the girl at work; her safety is merely incidental. 'I do not know where she works, but I know what she gets a week' fairly represents the attitude of the average parent." <sup>167</sup>

\* \* \* \* \*

159. "Probably of more importance than the size of the family is the economic position of the mother, particularly during the years of the daughter's adolescence. It is a vital loss if a girl's mother is away from home all day, leaving her after school hours to associates of whom the mother knows nothing and who may be most questionable in their influence on her developing character. In 145 instances, or in 22.4 per cent of the total number of cases studied, the mother worked outside the home." <sup>168</sup>

\* \* \* \* \*

160. "Our conclusion is that the relative economic prosperity of the families wherein our convicts were brought up has had no influence, one way or the other, upon the frequency of their subsequent convictions for crime; but, measured by length of imprisonment, the influence of poverty has certainly not tended to

<sup>166</sup> Travis, T., *op. cit.*, p. 33.

<sup>167</sup> Woods, R. A., and Kennedy, A. J., *op. cit.*, p. 59.

<sup>168</sup> Kneeland, G. J., *op. cit.*, p. 180.



increase, but if anything appears to have acted in the direction of diminishing, the recidivism of these convicts." <sup>169</sup>

\* \* \* \* \*

161. "Many of the families keep boarders. The keeping of boarders in the home affects the child both physically and morally. Outsiders taken into the home not only increase its crowded conditions but destroy its privacy. The keeping of boarders, however, is often an economic necessity, as without this source of income many families could not keep above the dependency level." <sup>170</sup>

\* \* \* \* \*

162. "There is very good reason to suspect that the people of lower economic position in general are much more apt to be arrested or convicted, when equally guilty with the rich." <sup>171</sup>

\* \* \* \* \*

163. "Poverty in the modern city generally means segregation in low-rent sections, where people are isolated from many of the cultural influences and forced into contact with many of the degrading influences. Poverty generally means a low status, with little to lose, little to respect, little to be proud of, little to sustain efforts to improve. It generally means bad housing conditions, lack of sanitation in the vicinity, and lack of attractive community institutions. It generally means both parents away from home for long hours, with the fatigue, lack of control of children, and irritation that goes with these. It generally means withdrawal of the child from school at an early age and the beginning of mechanical labor, with weakening of the home control, the development of antisocial grudges, and lack of cultural contacts. Poverty, together with the display of wealth in the shop windows, streets, and picture shows, generally means envy and hatred of the rich and the feeling of missing much in life, because of the lack of satisfaction of the fundamental wishes. Poverty seldom forces people to steal or become prostitutes in order to escape starvation." <sup>172</sup>

<sup>169</sup> Goring, C., *The English Convict*, London, His Majesty's Stationery Office, (abridged edition) 1919, p. 205. (Elaborate Pearsonian,—statistical survey of a random sample of 3,000 English male convicts.)

<sup>170</sup> Edmondson, E. H., "Juvenile Delinquency and Adult Crime," *Indiana University Studies*, Study No. 49, Bloomington, Ind., Vol. VIII, 1921, p. 62.

<sup>171</sup> Sutherland, E. H., *op. cit.*, p. 109.

<sup>172</sup> *Ibid.*, p. 169.

164. "Occupation of children seems to be conducive to delinquency. About 38 per cent of the delinquents in the Manhattan Children's Court in 1916 had been employed prior to court proceedings, though only about 10 per cent of the children of Manhattan in general were employed; these boys came almost equally from homes rated as good, fair, and bad, and there was little difference in average mentality, judged by the proportions in ungraded classes. The working boys committed more serious offenses and had a higher percentage of recidivism—43 per cent of the workers were recidivists, 28 per cent of the nonworkers. It was judged that in 28 percent of the cases there was a direct connection between the delinquency and the occupation. This conclusion by Miss McIntyre is in accordance with the older findings of the Commission on Woman and Child Wage-earners, that the proportion of working children who became delinquent was about four times as great as the proportion of the children not working. Those engaged in street trades seem especially liable to delinquency." <sup>173</sup>

\* \* \* \* \*

165. "English readers are astonished to find how small an emphasis is placed upon poverty by Healy. In only 0.5 per cent of his Chicago cases was poverty a major cause, and in only 7.2 a minor one; . . . in a volume of over eight hundred pages the short paragraph devoted to poverty occupies no more than seventeen lines. On the other hand Breckinridge and Abbott in their excellent investigation of the home conditions of court cases in the same city allege that 'in round numbers nine-tenths of the delinquent girls and three-fourths of the delinquent boys come from the homes of the poor'—a term which, as they explain, roughly includes the four lowest grades in Charles Booth's classification (*The Delinquent Child and the Home*, 1912, p. 74). Morrison's often-quoted figures for English children are equally high. 'In all but 15 per cent,' he writes, 'the parents were unable to pay even two shillings a week towards maintenance' (*Juvenile Offenders*, 1900, p. 176). But as I have just remarked, percentages of this nature, based solely on cases actually committed by a court, tend to exaggerate the frequency of poverty among juvenile delinquents generally." <sup>174</sup>

<sup>173</sup> *Ibid.*, p. 170.

<sup>174</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, pp. 66-7, fn. 8.

166. "These charts may be fairly utilized as negating certain older ideas that delinquents and criminals were the malnourished, the underdeveloped members of society, exhibiting thus the effects of poverty. Rather, the charts show surprisingly good conditions of development and nutrition for a very large share of our cases." <sup>175</sup>

\* \* \* \* \*

167. "The majority of convicted criminals belong to the poorer classes. Just how much the proportions would be affected if we were able to catch and convict the many more intelligent criminals who now escape the law, it is impossible to say. The fact remains, however, that the poor have greater inducements to crime than do the well-to-do, by reason of economic necessity and because of the paucity of diversions and the lack of opportunity for the satisfaction of perfectly normal cravings. We have very little data upon which to base estimates as to the exact economic status of criminals." <sup>176</sup>

\* \* \* \* \*

168. "The importance of the economic factor is, therefore, dependent not so much upon absolute poverty as on that relative symptom which puts a person in discord with the means at his possession and with the social standards of the group in which he belongs. In other words, a man may be wealthy but his needs and social appetite may be so excessive that he is driven to exact additional means by some unlawful methods." <sup>177</sup>

\* \* \* \* \*

169. "The families were, as a rule, poor, but very few were in actual want. The immediate cause of delinquency was, with the exception of two cases, never on account of poverty or a desire to better the financial condition.

"Moreover, the nature of the offense shows the absence of the economic factor as a cause of delinquency. Only 8 out of 40 girls

---

<sup>175</sup> Healy, W., and Bronner, A. F., *Delinquents and Criminals*, New York, The Macmillan Company, 1926, pp. 132-3. (675 cases studied of 4,000 delinquents in Boston and Chicago. Follow-up study of juvenile delinquents made by clinical experts who originally studied these cases.)

<sup>176</sup> Parsons, P. A., *op. cit.*, p. 168.

<sup>177</sup> Brasol, B., *The Elements of Crime*, New York, Oxford University Press, 1927, p. 92. (Examination of the more important social causes of criminality and the psycho-physical characteristics of the criminal.)

were arrested for petty larceny (shoplifting), and the articles taken were of no value to the delinquent." <sup>178</sup>

\* \* \* \* \*

170. "On the other hand, the survey showed that almost the entire group of cases lived under conditions of extreme poverty and unusually congested housing, in homes that were broken by death or desertion of one or both parents in over one-half of the cases, and in which parental care was rendered ineffective in a large percentage of the cases by the employment of mothers at jobs in addition to household tasks." <sup>179</sup>

\* \* \* \* \*

171. "Of the 447 families in which information as to economic status was available, 66 (14.8 per cent) were found to be in the dependent group, 252 (56.4 per cent) in the marginal group, and 129 (28.8 per cent) in the comfortable group. Of the last, only 14 families possessed property of more than five thousand dollars." <sup>180</sup>

\* \* \* \* \*

172. "There was a time when homes that were broken up due to one cause or another—sickness, intemperance, misfortune or what not—could be rehabilitated if the original cause or causes of the breakdown were remedied. Nowadays the prospect of re-establishing a home in New York for people of small means, especially where there are children, is so remote as to be almost negligible. Rents are either too high or the sort of place that may be obtained is generally so deplorably bad that there is practically no choice remaining." <sup>181</sup>

\* \* \* \* \*

173. "Seventeen and one-tenth per cent of the families have incomes below the subsistence level; 31.4 per cent have incomes ranging in the limits of the subsistence level; 18.2 per cent have incomes

<sup>178</sup> Grimberg, L., *op. cit.*, p. 93.

<sup>179</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "From Truancy to Crime—a Study of 251 Adolescents," *Report of the New York Crime Commission, 1928*, Albany, 1928, pp. 444-5.

<sup>180</sup> Glueck, S. and E. T., *op. cit.*, p. 113.

<sup>181</sup> "The Present Status of the Housing Emergency," *Report of the New York Commission of Housing and Regional Planning*, Albany, December 22, 1923, p. 82.

in the health and decency level; and 33.3 per cent of the families have incomes above the health and decency level." p. 235.

"The facts seem to indicate that the boy delinquents in this study are recruited mainly from the lower economic classes. . . . 67 per cent of the occupations of the parents of the delinquent boy group are below the skilled occupations, which is approximately 15 per cent more than the general population.

"There is a correlation of  $+.153$  with a P.E. of  $\pm .033$  between the intelligence of children and the occupational status of parents, indicating a very slight tendency for the lower I.Q.'s to be associated with the less skilled group. . . .

"Of the boy delinquents, 51.5 per cent are gainfully employed outside of the home before commitment, and approximately 25 per cent of the mothers are so employed." p. 239.<sup>182 183</sup>

#### D. Elements Extraneous to Home

##### 1. BAD COMPANIONSHIPS—GANG MEMBERSHIP

174. "Although varying widely in importance as a causative factor in delinquency, the influence of bad companions is seldom really insignificant and we find that 62.4 per cent of our cases are considered to have been unfavorably influenced by 'friends.'"<sup>184</sup>

\* \* \* \* \*

175. "The friendships that most commonly exert a harmful influence are friendships with others of the same age and sex as the child himself, living outside the child's own home, but coming often from the same school and the same street, and either actively engaged in delinquency themselves or else actively inciting and encouraging it. As an outstanding factor I have noted such companionships in nearly 18 per cent of my cases—a figure which ranks among the biggest for any single cause."<sup>185</sup>

<sup>182</sup> Caldwell, M. G., "The Economic Status of Families of Delinquent Boys in Wisconsin," *The American Journal of Sociology*, Vol. XXXVII, September, 1931, pp. 235, 239. (The economic conditions of the families of 492 delinquent boys who were committed to the Wisconsin Industrial School, Waukesha, Wis.)

<sup>183</sup> For other passages dealing with economic conditions, but presented earlier in this appendix, see numbers 4, 14, 27, 54, 55, 66, 68, 77, 90, 91, 98, 105, 106, 116, 125, 126, 127, 132, 135, 140 and 148.

<sup>184</sup> Bingham, A. T., *op. cit.*, p. 516.

<sup>185</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, p. 124.

176. "The importance of gang life and bad companionship in delinquency is indicated by the fact that approximately one-third of all the children arraigned in the Manhattan and Brooklyn courts are arraigned in groups of three or more. Nearly one-half of these arrested for stealing and burglary are arraigned in groups of three or more."<sup>186</sup>

\* \* \* \* \*

177.

"All Boroughs—1925

Offense	Arraigned singly	Two	Three or more
Assault.....	240	34	27
Robbery.....	27	20	12
Burglary.....	236	280	674
Unlawful entry.....	34	30	48
Stealing.....	588	360	386
Disorderly conduct.....	456	268	550
Peddling or begging.....	60	54	143
Ungovernable or wayward.....	617	66	44
Desertion of home.....	952	116	47
Truancy.....	59	...	5
Violation of railroad laws.....	26	18	116
Violation of corp. ordinances.....	11	8	5
Unclassified.....	208	54	91
GRAND TOTAL, 6,970	3,514	1,308	2,148

"32 per cent committed in groups of three or more.

"Summary: These figures indicate that approximately one-third of all the offenses among children, coming to the Manhattan and Brooklyn courts, are committed in groups of three or more, and that for the offenses of burglary and stealing nearly one-half are committed in groups of three or more.

"These figures indicate that a considerable portion of delinquency is a result of group and not of individual activity."<sup>187</sup>

\* \* \* \* \*

178. "The gang is regarded by some sociologists as a normal play group of spontaneous origin, arising usually in the immediate home environs of its members. Such groups consist usually of

<sup>186</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Delinquency in a District of Kings County," *Report of the New York Crime Commission, 1927*, Albany, 1927, p. 381.

<sup>187</sup> Butcher, W. L., *op. cit.*, p. 38.

members relatively homogeneous in age and of similar economic and social status. Homogeneity with regard to intelligence is not known."<sup>188</sup>

\* \* \* \* \*

179. "It is interesting to note that whereas a total of 1,115 children deserted their homes in 1925 in all boroughs, 952 deserted them singly and only 47, or 5 per cent, in groups of three or more; but of 2,524 children who committed the acts of stealing and burglary, 1,060 children, or 42 per cent of the total, committed these acts in groups of three or more.

"These figures do not give a complete picture of the relation of ganging to delinquency, as they tabulate only the offenders who were caught, and not those who made their safe 'getaway.'

"The Illinois Crime Survey (p. 663) gives as its findings on the relation of gangs to juvenile crime:

"In a study of 6,000 instances of stealing, with reference to the number of boys involved, it was found that in 90.4 per cent of the cases two or more boys were known to have been involved in the act and were consequently brought to court. Only 9.6 per cent of all the cases were acts of single individuals. The number of boys involved tends to vary with the type of offense and the chronological age of the participants. . . . In instances of petty stealing in the neighborhood, there were usually five and six participants, most of whom were very young offenders; whereas in instances of hold-up, a more highly specialized type of offense, most of them were older and more experienced delinquents. It seems as the delinquent grows older and becomes more specialized in a particular form of delinquency, the number of his associates decreases.'" <sup>189 190</sup>

## 2. USE OF LEISURE—RECREATION

180. "The number of young offenders in this group who are manufactured into delinquents by the large city is appalling. A carefully trained investigator lived for three years in the Hell's Kitchen district of the City of New York in order to become familiar with the lives of young delinquents who found their way into the Children's Court from that section of the city. He reports that play and the instinct for play are the cause of most of

<sup>188</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 295.

<sup>189</sup> *Ibid.*, p. 298.

<sup>190</sup> For additional references regarding "Bad Companionships—Gang Membership" see numbers 9, 10, 27, 39, 40, 62, 72 and 159.

the so-called delinquency in that neighborhood and, furthermore, that the treatment of these little offenders as delinquents is responsible for their gradual drifting into an attitude of hostility toward the law and the courts."<sup>191</sup>

\* \* \* \* \*

181. "It is certainly true that the human is a gregarious animal, and that the child's social instinct is very strong. It is natural, therefore, for children to club together in a group, which, if properly handled, supervised, and directed, may mean the salvation of every young member of it, but which, if allowed to drift along, may develop into a gang of toughs and roughs, who run afoul of the law and try to beat it, only to find themselves in court and probably in prison. Who can safely deny that social conditions are responsible for offenders of this type?"<sup>192</sup>

\* \* \* \* \*

182. "There is a direct connection between play and crime, as defined by the statute law and ordinances. Under the present laws and police regulations of the City of New York, it may be an offense to play marbles in the street, as it may be an offense for children to skip a rope on the sidewalk. Mr. Edward M. Barrows, formerly a field secretary of the National Child Labor Committee, lived in and studied conditions for three years in a crowded section of the City of New York popularly known as Hell's Kitchen. As a result of his study of conditions he gives it as his opinion that eighty per cent of the juvenile offenses for which children are brought to the Children's Court consist of rational play which is not essentially criminal."<sup>193</sup>

\* \* \* \* \*

183. "As one thinks over these facts and reads again these brief accounts of serious juvenile delinquency, the conviction deepens that here, in a neighborhood that most people would think exceptionally good, is one of the worst failures in developing wholesome uses of spare time which has been revealed in this study; the conviction too gains ground that juvenile delinquency is no respecter of 'good families' and 'desirable neighborhoods.'"<sup>194</sup>

<sup>191</sup> Lewis, B. G., *op. cit.*, pp. 71-2.

<sup>192</sup> *Ibid.*, p. 72.

<sup>193</sup> *Ibid.*, pp. 276-7.

<sup>194</sup> Thurston, H. S., *op. cit.*, p. 85.



184. "A fair interpretation of the facts shows a connection between delinquency and habitual uses of spare time in at least three out of four of all the cases."<sup>195</sup>

\* \* \* \* \*

185. "The fourth negative factor which contributes to a situation favorable to the development of gangs and their delinquencies is the lack of proper guidance for the boys' recreational activities. The home, the school, and the church in gangland areas are not functioning adequately in this direction; and investigation shows that perhaps between 80 and 90 per cent of gangland boys are not connected with any supervised recreational activity. The Cleveland Recreation Survey's findings on this point are conclusive. The activities of the boys who later become 'wholesome citizens' were found to have been guided by parents, friends, teachers, and recreation leaders, whereas those of delinquent and near-delinquent groups—unorganized by family, school, church, and recreational agencies—represented a dissipation of energies in activities which were scattering and meaningless, if not demoralizing."<sup>196</sup>

\* \* \* \* \*

186. "The *section having the greatest amount of delinquency was also that most lacking in playground space with adequate supervision of activities.* It may be accepted as a truism that a sufficient amount of wisely guided recreation is a most important factor in the prevention of delinquent behavior. It is to be recognized, however, that the problem is not a simple one. Were it simple, the erection of recreation centers, in charge only of janitors should automatically slice delinquency at least in half. That this does not happen, indicates that the important factor is the program and the personnel directing the program and not merely the building. There are genuine problems involved that no one but a well-trained recreation worker can fully understand."<sup>197</sup>

<sup>195</sup> *Ibid.*, p. 110.

<sup>196</sup> Thrasher, F. M., "The Gang as a Symptom of Community Disorganization," *Journal of Applied Sociology*, September-October, 1926, Vol. XI, p. 16. (Conclusions based on past studies of the "gang" by the author, Professor of Sociology, Illinois Wesleyan University.)

<sup>197</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Delinquency in a District of Kings County," *Report of the New York Crime Commission*, 1927, Albany, 1927, p. 350.

187. "Playground adequacy study made by Russell Sage Foundation for Regional Plan shows upper section of area adjoining commercial district (that having greater proportion of delinquency) has 0 to 20 per cent of minimum playspace considered essential for children. The lower section (having smaller proportion of delinquency) has 61 to 80 per cent of minimum playspace in parks and playgrounds. . . .

"A tabulation of community and commercial recreation indicates the utter inadequacy of wholesome community recreation facilities. There are 105 poolrooms and 14 moving picture shows, but only 4 community centers, 4 playgrounds, and 14 scout troops." p. 378.

"Play life of children in this area is almost entirely on the street. Organized street games are uncommon as the children have not learned the variety of games common to other communities. A Russell Sage Foundation study substantiates this." p. 379.<sup>198</sup>

\* \* \* \* \*

188. "Attempts have been made to determine the influence of playgrounds on juvenile delinquency by means of map studies. These maps show the location of the play areas and the location of the homes of juvenile delinquents. . . . Such a map prepared by the Chief Juvenile Officer of the District Court of Iowa located at Des Moines . . . showed that cases of delinquency decreased in proportion to proximity to play areas.

"In connection with a similar map which was prepared for Omaha during 1922 and 1923, it was found that 88 per cent of the homes of juvenile delinquents were located more than one-half mile from the nearest playground, and that the greatest tendency to delinquency occurred in the congested districts of the city in which were few or no playgrounds, and also in those areas near the railroad tracks and the river. A report based upon a map study made by the Playground and Community Service Commission of New Orleans says, 'A practically spotless area surrounded each playground shading off into greater density in proportion to the distance from the playgrounds.' The influence of traffic barriers was likewise noted, indicating that children will not cross thoroughfares to reach the playgrounds, even though such playgrounds are not far distant from their homes.

---

<sup>198</sup> *Ibid.*, pp. 378, 379.

"To test the validity of this type of analysis, Mr. Truxal, in his recent study, prepared a spot map of the Borough of Manhattan in New York City, indicating the address of 1,795 boys who had been brought to the Children's Court in 1926." p. 313.

"In comparing the index of delinquents with that of playspace adequacy in each district, it was found that in only 2 instances out of 28 were the results quite the reverse of what was to have been expected on the basis of the hypothesis that the presence of play areas does have a retarding influence on delinquency." pp. 315-16.<sup>199</sup>

\* \* \* \* \*

189. "Delinquencies do not as a rule occur during the hours when people are engaged in their daily tasks, but rather in their leisure time. That is where wholesome interests and recreations can be most effective in crime prevention. Also, participation in interesting and satisfying play may help to reveal a new view of life and the rewards of industry and orderly living."<sup>200</sup>

\* \* \* \* \*

190. "The trouble with most of the recreational enthusiasts is that they find in the provision of recreation spaces a panacea for too many social evils. No city executive would refuse to go to any length to supply a playground in a congested section of his locality if he were satisfied that by its provision delinquency would be eliminated from that district. On the other hand, no sensible recreation leader would make such a contention if he is at all cognizant of the many factors that contribute to the making of the criminal."<sup>201</sup>

\* \* \* \* \*

191. "One of the claims in behalf of recreation is that the provisions of recreation spaces will reduce juvenile delinquency. In an effort to answer the question of whether or not there is any

---

<sup>199</sup> Hanmer, L. F., "Recreation and Delinquency," *Proceedings of the American Prison Association*, (Kansas City, Mo., 1928), pp. 313, 315-16. (Studies of the National Recreation Association and other studies. Quotes comparative study by A. G. Truxal of areas with and without playgrounds and their respective delinquency records.)

<sup>200</sup> *Ibid.*, p. 317.

<sup>201</sup> Truxal, A. G., *Outdoor Recreation Legislation and Its Effectiveness*, New York, Columbia University Press, 1929, p. 131. (Summary of American legislation for public outdoor recreation 1915 to 1927 together with a study of the association between recreation areas and juvenile delinquency in Manhattan Borough, New York City, 1920.)

association between play areas and delinquency, this analysis was pursued. By way of introduction, the various methods by which the problem has been attacked were considered and criticized. Manhattan Island was chosen for investigation and the year studied was 1920. By relating the amount of delinquency coming from certain defined districts to the inadequacy of playspace in those districts, a measure of association was found between these two factors which expressed in mathematical term was a correlation coefficient of  $+.44$ . To check this result by means of other environmental factors which are generally supposed to contribute to the production of delinquency, the factors of child density and racial composition were held constant in relating pairs of sanitary districts which differed in accessibility to playspaces. As a final check, the question of the uniformity of police regulation among the play districts of the island was considered."<sup>202</sup>

\* \* \* \* \*

192. "In South Chicago, after the inauguration of the playground system, delinquency was found to fall off twenty-nine per cent. Truxal has made an extended study of the effect of municipal outdoor play on juvenile delinquency rates. This investigator first spotted on a map of Manhattan Borough the addresses of 1,795 boys brought into the children's court in 1926. He indicated the municipal park playgrounds on this map, then using six playgrounds as centers, drew circles one-half mile in diameter. Then, for comparison, other half-mile circles were drawn, contiguous to the first circles but neither containing nor bordering on playgrounds. The number of cases of delinquency in the two sets of areas were then compared. In four of the six pairs of areas, there were higher juvenile delinquency rates in the areas outside of the reach of playgrounds, but the differences were too slight to be conclusive, according to the author. . . .

"He then sought and selected contiguous areas having about the same density per acre and same racial characteristics, but differing in their degree of playspace adequacy. Twelve such pairs of districts were found, and in ten he found a relation of greater delinquency in association with less playspace adequacy."<sup>203</sup>

<sup>202</sup> *Ibid.*, pp. 185-6.

<sup>203</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, pp. 266-7.

193. "From the evidence gathered, we can say that a certain amount of association between recreation areas and juvenile delinquency appears to exist. This is quite a different statement, however, from one which would assign to the presence of recreation spaces the controlling factor in the prevention of delinquency. On the basis of this scientific exploration, we should have arrived at two very definite conclusions. In the first place, we should look with considerable skepticism on any easy generalization which would assign to this one environmental factor, viz., recreation spaces, the predominating influence in the control of delinquency. In the second place, we should be able to say that there appears to be a moderate association between the presence of recreation areas and the absence of juvenile delinquency, provided we have taken into account a sufficient number of environmental influences.' " <sup>204</sup>

\* \* \* \* \*

194. "The real emphasis of the report, however, as in reports on juvenile delinquency in London, was on the connection that was established between leisure-time activities and crime. Children were exploited in street trades at illegally late hours and spent their leisure in pool rooms, some reported as filthy. In suggesting the remedy the investigators revealed the cause. They suggested that pool and kindred games be provided under healthy conditions; that dark, unventilated picture houses be prohibited; and that recreation piers with dancing facilities be provided." <sup>205 206</sup>

#### IV. Individual Aspects

##### A. Inner Urges, Desires or Inherited Tendencies

195. "There can be no doubt that much of our delinquency may be directly accounted for by the perpetuation of degenerate and tainted stock. . . .

"It must not be overlooked, however, that even in feeble-minded children, delinquency is directly a product of environment. It would be impossible for a feeble-minded boy to steal

<sup>204</sup> *Ibid.*, p. 267. (Quoting from Truxal, A. G., *Outdoor Recreation Legislation and Its Effectiveness*, pp. 165-6, cited above.)

<sup>205</sup> Committee on Regional Plan of New York and Its Environs (Adams, T. and Heydecker, W. D.), *op. cit.*, p. 212.

<sup>206</sup> "Use of Leisure and Recreation" are dealt with also in passages numbers 9, 10, 14, 111, 114, 159 and 176.

or commit any other offense if the conditions around him were not such that his purpose could be accomplished. In fact, it is found that the conditions are often extremely suitable to the act. To be allowed to play on the streets; to associate with bad companions; to grow up in a neighborhood where the moral standards are very low, or almost altogether lacking—these are just as truly producers of delinquency as is feeble-mindedness.”<sup>207</sup>

\* \* \* \* \*

196. “Of the many deeply ingrained notions that have stood in the way of progress in our field are the notion of the immodiability of human nature, of the rigidity of the limitations that heredity places upon individual capacity and development, and the notion that human motivation is always a deliberate, conscious, and intellectually determined phenomenon.”<sup>208</sup>

\* \* \* \* \*

197. “As far as this sociological method has been developed within recent years of studying life histories of personal experiences, it indicates that crime among criminals above the moron level is due to faulty individual attempts to satisfy the basic urges or desires of life, such as the urge for new experience, the urge for security, the urge for response, the urge for recognition. Criminal acts seem to result when one or more of these inner urges are unduly or improperly thwarted or suppressed or are not trained in proper inhibitions, and hence lead into or burst into antisocial behavior or crime.”<sup>209</sup>

\* \* \* \* \*

198. *Abstract:* To say that crime is psychopathic and due to gross mental defect does not satisfactorily explain why it is committed. Every crime has a motive, either expressed or repressed. Uncontrolled instinctive urgings appear to be the mainsprings of crime, and they are uncontrolled either because of lack of home training or because of hereditary defects.<sup>210</sup>

<sup>207</sup> Williams, J. H., *op. cit.*, p. 30.

<sup>208</sup> Glueck, B., “Constructive Possibilities of a Mental Hygiene of Childhood,” *Mental Hygiene*, July, 1924, p. 653.

<sup>209</sup> Bogardus, E. S., “Exploring for the Causes of Crime,” *The Journal of Social Forces*, (1924-1925), March, 1925, Vol. III, p. 465. (Opinions and conclusions of the author based on extensive personal experience and study of the problem.)

<sup>210</sup> Tait, W. D., “Crime and Its Causes,” *Journal of Abnormal and Social Psychology*, 1926, Vol. XXI, pp. 234-9.

199. "The egocentric or antisocial propensity, causing social friction, and ultimately leading to crime, as any other impulse, is not created in complete form, but is being gradually evolved under the influence of countless social transformations, and is thereupon conveyed, by inheritance, to succeeding generations." p. 31.

"But there is no proof whatever, that in the case of the average criminal the morbid instinct is something with which he was born. On the contrary, every-day life furnishes countless examples of the overwhelming influence of social environment upon the juvenile mind. The result is that when social conditions are unfavorable as tending to stimulate pathogenic impulses, they are inevitably converted into crystallized criminal habits. This fact seems to be generally recognized by modern sociology." p. 42.<sup>211</sup>

\* \* \* \* \*

200. *Abstract*: Needs are the sources of crime. They are divisible into material and mental; to the former belong hunger, thirst, sexual requirements, desire for alcohol, narcotics, sleep, warmth, light, etc.; to the latter belong the intellectual, aesthetic, political wants. Each factor is considered in its connection with criminality. The author deems it a dangerous error to base the determination of criminal character on the somatic conformation of the individual. The task of criminal anthropology is to establish the relation between the intensity of the urge and the strength of the inhibiting, controlling capacity, as everything else is contingent upon this.<sup>212 213</sup>

## B. Individual Variations or Reactions

201. "A feeling of inferiority produced by unfavorable comparison with others tends to cause the individual to withdraw into himself and carry on his activities largely in imagination, in day-dreaming. An attitude of rebellion and negativism may be produced by interactions with persons in authority, and an antisocial grudge developed which will be retained through life." <sup>214</sup>

<sup>211</sup> Brasol, B., *op. cit.*

<sup>212</sup> Patrizi, M. L., "Dynamics of Needs and Criminality," *Stabilimenti Poligrafici Reuniti*, Bologna, 1928.

<sup>213</sup> For additional references dealing with "Inner Urges, etc.," see extract number 14.

<sup>214</sup> Sutherland, E. H., *op. cit.*, p. 121.

202. "It is clear that much must depend upon the mode in which each one reacts to the inadequate conditions under which he is housed and has to live." <sup>215</sup>

\* \* \* \* \*

203. "Furthermore, these studies suggest that these mental characteristics play their greatest role in the making of the criminal in childhood and youth when the character is being formed. Even in normal children this is the period when there is the greatest stress in the process of adjustment to life conditions. Frequently, even the child of normal intelligence and good heredity finds it difficult under evil surroundings to form habits in accord with established social standards." <sup>216</sup>

\* \* \* \* \*

204. "No one of the three main factors in breeding delinquency fifteen years ago seemed to be the outstanding trouble here. It was not alcoholism, nor marked mental defect, nor economic dependence apparently. The interesting and significant observation which forces itself on our attention is this: In Rockland County, through social and natural agencies, the environment and biological inheritance improved, but delinquency merely changed its form.

"With increased earning power and educational and material advantages has come an increasing desire to 'get things' and to 'do as we please.' The problem lies not, it seems to me, in the desire, but in the determination, to get them, no matter what the cost in moral and social disaster. Thefts of candy, toys, a radio, an automobile; indulgence in petting parties, illicit sex relations, divorce, and free love have their rise in individual bad habits and ideals." <sup>217 218</sup>

---

<sup>215</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, p. 85.

<sup>216</sup> Gillin, J. L., *Criminology and Penology*, New York, The Century Company, 1926, pp. 153-4.

<sup>217</sup> Mendum, G., "Conditions Breeding Delinquency in Rural Communities," *Proceedings of the National Conference of Social Work*, Chicago, University of Chicago Press, 1927, p. 150. (15 years of social work experience in Rockland County, N. Y.)

<sup>218</sup> The following passages supplement the above on the subject of "Individual Variations or Reactions": Numbers 7, 10, 11, 13, 14, 18, 20, 21, 25, 28, 43, 112, 141 and 196.



### C. Mental Deficiency or Disease as a Factor

205. "In the group of cases studied in this report, the findings that the delinquent boys have been both less intelligent and more unstable than their nondelinquent brothers, gives credence to the view that they were abnormal individuals influenced by abnormal environments, both within their homes and in their own children's world. There is evidence that the environment in which they were reared was abnormal, not alone in its material drabness and harshness, but in the mental quality of their associates and families. There is evidence that while the delinquents themselves were retarded and even feeble in intellect, their nondelinquent brothers and other members of their families were, for the most part, not much higher in intelligence and represented an inferior stratum of mentality. Still further evidence indicates that the ethical standards of many of the families and associates of the delinquents were low and that loose behavior particularly with regard to theft and other misappropriations of property, was either condoned or at least not vigorously condemned. The inference from these findings is that the delinquents in this group at least were boys who by virtue of their lessened ability to think clearly, to define the social code of right and wrong in terms of their own impulses, to resist sinister suggestions—in a word, by virtue of their mental inferiority to those about them, were prey to the worst influences in their environment." <sup>219</sup>

\* \* \* \* \*

206. "The data allow us to draw the conservative conclusion that among the populations of certain slum areas are many more individuals who are deficient in general intelligence, and many fewer of superior intelligence than are found in more favorable residential areas. If this is true, we may draw the further conclusion that in the group of cases studied in this report the delinquent was in general a child of markedly retarded intelligence, living among . . . associates many of whom were of somewhat retarded intelligence, under unfavorable social and ethical influences." <sup>220</sup>

---

<sup>219</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Problem Boys and Their Brothers," *Report of the New York Crime Commission, 1929*, Albany, 1929, pp. 210-12.

<sup>220</sup> *Ibid.*, p. 216.

207. "One-third of the men are of normal mentality, about half being classified as dull or of borderline mentality, and 21 per cent as feeble-minded."<sup>221</sup>

\* \* \* \* \*

208. "There is evidence that the capacity to overcome slovenly and unthinking habits is weak where intelligence is inferior. There is evidence that conduct disorders arise more frequently among those of inferior rather than of superior intelligence."<sup>222</sup>

\* \* \* \* \*

209. "Irwin and Marks, in annually testing the intelligence on the Terman-Binet individual testing scale, of 4 successive first-grade classes in a congested slum area, found fewer bright children and a great many more dull children than are found among children generally. These classes, tested between 1917 and 1920, at a time when restrictive immigration was already in force, and few new immigrants entered this slum, seem to show in their results not only the tendency of slums to have a handicap of many dullards, but to show the tendency of those of better mental endowment to leave the slums. For, in the face of a gradually declining population, the number of bright children fell and that of dull children increased."<sup>223</sup>

\* \* \* \* \*

210. *Abstract*: An examination of the psychopathic history of over 3,500 mental patients with criminal records in order to determine the relationship between mental disease and crime. In conclusion, it is stated that dementia praecox contributes *most* to crime. Other forms of mental disease are assigned less important connections, and a summary of each disease as a causative factor in crime is given.<sup>224</sup>

\* \* \* \* \*

211. "Two general conclusions stand out from the consideration of the literature on mental factors in crime. First, it has not been determined to what extent either defective intelligence or any

<sup>221</sup> Glueck, S. and E. T., *op. cit.*, p. 163.

<sup>222</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission, 1930*, Albany, 1930, p. 284.

<sup>223</sup> *Ibid.*, p. 285.

<sup>224</sup> Pilcher, E., "Relation of Mental Disease to Crime," *Journal of Criminal Law and Criminology*, August, 1930, Vol. XXI, pp. 212-46.

other mental abnormality is present in the criminal population. Secondly, even where defective intelligence and mental abnormalities are present in criminals, a necessary and inevitable causal relationship has not been demonstrated." <sup>225</sup> <sup>226</sup>

#### D. Physical or Organic Defects, or Abnormality

212. "Six hundred and fifty-eight individuals, or 65.8 per cent of our cases were in good or fair health; 342 individuals, or 34.2 per cent—one out of every three persons—were in poor or bad health, and in such physical condition as to warrant urgent medical treatment.

"About 626, or 62.6 per cent, were considered self-supporting; while 374, or 37.4 per cent, were not self-supporting.

"Some correlation between these figures is evident.

"Thirty-five per cent of those found to be in good or fair physical condition had been steadily employed; while only 2 per cent of those found to be in poor or bad physical condition had been found steadily employed.

"Eighty-five per cent of those found to be in good or fair physical condition had been and still were self-supporting; while only 18 per cent of those found to be in poor or bad physical condition had been and were still self-supporting. The chances for being self-supporting were more than four to one in favor of the individual in good physical condition." <sup>227</sup>

\* \* \* \* \*

213. "Disease plays a considerable part in the cause of crime. . . . Moral disease is largely a matter of early training and environment. If the individual is brought up with the proper precepts and has them well instilled into him, he will probably not suffer a disordered character.

"Mental disease may be hereditary or environmental, and at the same time may be brought on by a disregard of the physical laws of health. . . .

"Physical disease is much a matter of surroundings and environ-

<sup>225</sup> Ploscowe, M., *op. cit.*, pp. 60-61.

<sup>226</sup> Further references regarding "Mental Deficiency or Disease as a Factor" are numbers 4, 22, 30 and 195.

<sup>227</sup> Anderson, V. V., and Leonard, C. M., "A Study of the Physical Condition of One Thousand Delinquents Seen in Court," *Journal of Criminal Law and Criminology*, May, 1919, Vol. X, p. 88. (Records of the last 1,000 cases filed in Municipal Court, Boston, of both men and women delinquents, 1919.)

ment, but may be influenced to a considerable extent by the moral and mental capacities of the individual." p. 103.

"One-sixth of all the prisoners examined asserted that one or more of their kin were alcoholics, that is addicted to the use of spiritous liquors in excess. This is recognized as a disease and it is known that this vicious tendency is handed down from one generation to the other. Many a crime has been committed under the influence of liquor. This point cannot be denied." p. 104.

"Venereal disease heads the list, in that 66 per cent admit one, both, or all three of the infections." p. 105.<sup>228</sup>

\* \* \* \* \*

214. "Physical ailments and defects are related to crime in three ways: (a) They cause irritation and discomfort; (b) they cause weakness, inefficiency, retardation, and failure; (c) they cause a lowering of the social status and a feeling of inferiority." <sup>229</sup>

\* \* \* \* \*

215. "Eye defects or ear defects or obstructions of nose or throat may have the following sequence of effects: Irritability and discomfort, retardation in school, lack of success in efforts, dissatisfaction with school or work, truancy, association with bad companions, and general view of oneself as an outcast. The child with enlarged tonsils who consistently holds his mouth open will be jeered at, called foolish, suffer a lowering of status. The child with crossed eyes, also, will be ridiculed, and only an extra effort will enable him to get along in the group in the regular way. There is a tendency for such persons to be ostracized, forced out of the groups, and forced into association with others of a different culture, and this frequently means lawless and anti-social groups. Stuttering and, especially in boys, lisping have the same effect. Unless there are special elements of strength in such persons or the circumstances are in other respects unusually good, character may be decidedly affected. Such things frequently cause irritation to others as well as to the person with the defect, which tends still more to make the individual feel that he is outside of the group and hence to take an antisocial attitude.

"Among the things which should be included, though perhaps

<sup>228</sup> Stanley, L. L., "Disease and Crime," *Journal of Criminal Law and Criminology*, (1923-1924) May, 1923, Vol. XIV. (Examination of 1,000 prisoners at San Quentin.)

<sup>229</sup> Sutherland, E. H., *op. cit.*, p. 180.

not a physical defect, is excess of physical vigor. This may lead to restlessness and a difficulty of doing things in the assigned way, and so may lead to breaks with the situation. It is frequently as difficult for such persons to adjust to the situations in which they are placed as for those with a decided lack of vigor. This excessive vigor sometimes appears in the dangerous form of hypersexualism in girls." <sup>230</sup>

\* \* \* \* \*

216. "In London I find that defective physical conditions are, roughly speaking, one and a quarter times as frequent among delinquent children as they are among nondelinquent children from the same schools and streets." <sup>231</sup>

\* \* \* \* \*

217. "From the further study of my cases, it will be seen that what we regard as delinquents were primarily biological products of an improper mating, with the resultant transmission of a psychic defect. To a great extent, the shaping of life of these girls was predestined and predetermined, following definite biological rules, for they were born devoid of the potentiality to adjust themselves to our social order." <sup>232</sup>

\* \* \* \* \*

218. *Abstract*: In one of his last works, Leonardo Bianchi stated that all really criminal behavior had a pathological or degenerative basis. The author's studies of some 12,000 offenders in the Roman prisons, plus other investigations in the anthropobiographical division of the police school, support this view. In the statistical evaluation of about 8,000 prisoners in 1925, it was shown that 3,636 were "pseudo-criminals" in the Lombrosian sense; the remaining 4,364 showed epileptic symptoms in 873 cases, neurasthenia in 500, degeneracy in 1,184, alcoholism in 1,104, tuberculosis in 800, and syphilis in 400 cases. Later study of 400 confessed murderers showed 137 epileptics, 174 cases of constitutional neurasthenia, physical degeneration in 45 cases, moral inferiority (*delinquenza nata*) in 35 cases, paranoidism 6 times, schizoidism 4 times, and mild insanity 6 times. In the few remaining cases, degenerative characteristics of a milder

<sup>230</sup> *Ibid.*, p. 180-81.

<sup>231</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, p. 239.

<sup>232</sup> Grimberg, L., *op. cit.*, p. 35.

nature were also found. All "real" criminals can be said, therefore, to be constitutionally abnormal in varying degrees. This abnormality is produced by a biological inheritance which causes the arrest of or an abnormal deviation in the evolution of the organism. The antisocial tendencies thus created are stimulated by other causal factors which favor the expression of recessive or latent antisocial personality traits. Thus, of all who live under unfavorable social conditions, only those become real criminals who have a predisposition based on original psycho-physical anomalies.<sup>233</sup>

\* \* \* \* \*

219. *Abstract:* The conclusion is reached that "no study of a child who presents a behavior difficulty is complete without a thorough study of the glands of internal secretion." Summaries of case histories, with treatment, are given.<sup>234</sup>

\* \* \* \* \*

220. "In considering the prevalence of delinquency in these slum areas, and in analyzing the environmental influences that affected the boys in the group studied, it is necessary to consider whether the delinquent in these areas is a normal individual influenced by abnormal circumstances, an abnormal individual, or an abnormal individual influenced, in addition, by abnormal circumstances. As has been indicated in the section dealing with delinquency in relation to intelligence, the evidence is conflicting, that based on the examination of juvenile offenders showing them to be mentally retarded and unstable, that based on the examination of adult prisoners showing them to be not markedly inferior in intelligence to the average man, although studies made by renowned psychiatrists have demonstrated the relationship of psychopathy and crime."<sup>235</sup>

\* \* \* \* \*

221. "By the term 'socially defective tendencies' is meant all those aspects of the social environment which are seemingly pathological in nature, such as feeble-mindedness, insanity, and ve-

<sup>233</sup> Di Tullio, B., "Biological Factors in Criminality," *Gesamte Strafrechtswissenschaft*, 1929, Vol. XL, pp. 492-8.

<sup>234</sup> Lurie, L. A., "Endocrinopathy and Conduct Disorders of Children," *American Journal of Psychiatry*, 1929, Vol. IX, pp. 285-305. (Study of 500 children; 60 per cent of conduct disorders were found "endogenous" in origin.)

<sup>235</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Problem Boys and Their Brothers," *Report of the New York Crime Commission*, 1929, Albany, 1929, p. 210.

nereal disease. . . . Out of 101 cases, 87.1 per cent show socially defective tendencies in the selected sample, and out of the 252 cases in the delinquent girl group 75 per cent show such tendencies." <sup>236</sup>

\* \* \* \* \*

222. "Fourteen per cent of the men were found to be in good physical condition, 79 per cent in fair condition, and only 7 per cent in poor condition." <sup>237</sup>

\* \* \* \* \*

223. "It would seem then that endocrinologists who make sweeping claims of the relation of endocrine imbalance to crime, lend justification to the complaint of Dr. Laignel-Lavastine in the introduction to his *The Internal Secretions and the Nervous System*. This classic monograph shows the relationship of nervous disorders to malfunctioning of the glands of internal secretion. But Dr. Laignel-Lavastine observes that glandular disturbance is invoked too frequently as a causative factor, every time, indeed, that the cause is in doubt, and consequently the endocrine glands have become 'the maids of all work of physiopathology.'" <sup>238</sup>

\* \* \* \* \*

224. "What is lacking in the attempts to explain crime on the basis of physical defects or abnormalities present in criminals is an explanation of how such defects motivate behavior." <sup>239 240</sup>

## V. Some Conclusions

### A. Difficulties of Isolating One Factor from Several Others

225. "It is impossible, therefore, to isolate the home as a factor, either from the constitutional equipment of the child or from the other institutions of the community. What is customarily done is to set a 'normal' standard of efficiency for the homes, and when a delinquent comes from a home ranked below normal, the investigator reports that the bad home conditions were the cause of de-

<sup>236</sup> Caldwell, M. G., "Home Conditions of Institutional Delinquent Boys in Wisconsin," *Social Forces*, March, 1930, Vol. VIII, p. 392.

<sup>237</sup> Glueck, S. and E. T., *op. cit.*, p. 163.

<sup>238</sup> Ploscowe, M., *op. cit.*, p. 34, fn. 51.

<sup>239</sup> *Ibid.*, p. 27.

<sup>240</sup> For additional references on "Physical or Organic Defects or Abnormality" see numbers 13, 27, 28, 80, 111, 112 and 205.

linquency; when a delinquent comes from a home ranked above normal, the investigator looks elsewhere for some other abnormal condition or trait as the explanation. This is undoubtedly due to the fact that responsibility, with its ethical implications, is attached to the notion of causation."<sup>241</sup>

\* \* \* \* \*

226. "A common error in comparing density of population is to take the density of an entire ward, or political subdivision, rather than the density of the specific area of delinquency or other factor being studied. Thus undue weight is given to parks or other local factors."<sup>242</sup>

\* \* \* \* \*

227. "Here, as in the case of other causative factors, it is practically impossible to isolate economic status from other conditions such as physical and mental pathology and physical and social environment."<sup>243</sup>

\* \* \* \* \*

228. "The boroughs on the outskirts of the city, save in several instances, were low in the incidence of juvenile delinquency. Burt, however, did not relate his findings to any analysis of London in terms of its economic or social stratification, thus his was a rudimentary presentation of facts. He presents correlations between the degree of juvenile delinquency and the degree of overcrowding (+.77) and between delinquency and poverty (+.67) but his units of measurement being boroughs, are too large to indicate a close causal relationship between poverty and crime, despite the high correlations."<sup>244</sup>

\* \* \* \* \*

229. "What is perhaps true, is that slight differences in each factor, for different cases, produced a summation effect. Thus, a family high in housing congestion, low in income, high in size,

<sup>241</sup> Sutherland, E. H., *op. cit.*, pp. 139-40.

<sup>242</sup> Burgess, E. W., *The Urban Community*, Chicago, University of Chicago Press, 1926, p. 162. (Quoting from Elmer, M. C., "Maladjustment of Youth in Relation to Density of Population," a short paper for the Proceedings of the American Sociological Society, 1927, based on data gathered for a study of factors contributing to juvenile delinquency in the Twin Cities of Minnesota.)

<sup>243</sup> Parsons, P. A., *op. cit.*, p. 169.

<sup>244</sup> Shulman, H. M. (Subcommission on Causes and Effects of Crime), "A Study of Crime and the Community," *Report of the New York Crime Commission*, 1930, Albany, 1930, p. 277.



and high in criminal background might be correlated with severe delinquency in the offender. Such a theory requires validation through treatment of the data, in terms of the family instead of in terms of the unit factor." <sup>245</sup>

\* \* \* \* \*

230. "It may be argued that bad housing conditions in themselves do not create criminals, for it is true that many crimes are committed by those who have been brought up in good homes." <sup>246</sup>

\* \* \* \* \*

231. "It is not the bad housing in itself that is so deplorable in its effects, but the character and quality of the badness—overcrowding, dark rooms and passages, lack of space for play in the open or within easy reach of the home—everything to nurture juvenile delinquency, or perhaps lack of facilities to counteract tendencies toward it." <sup>247 248</sup>

#### B. Paucity of Data and Research relative to Housing and the Problem of Causation

232. "No sufficiently large series of homes of nondelinquents has ever been studied to make comparisons regarding such conditions valuable." <sup>249 250</sup>

#### C. Housing One Factor in Vicious Circle

233. "One delinquent in every ten comes from a family wretchedly poor; lives in a home grossly overpacked at night; and is destitute during the daytime of all means for rational occupation. It is probably the conjunction of the three conditions, closely connected, as they are, one with another, that makes such a home environment so favorable a nursery for crime." <sup>251</sup>

234. *Abstract*: To prevent these personality and behavior difficulties the work should be started with children before they are

<sup>245</sup> *Ibid.*, p. 326.

<sup>246</sup> Committee on Regional Plan of New York and Its Environs (Adams, T. and Heydecker, W. D.), *op. cit.*, p. 211.

<sup>247</sup> *Ibid.*, p. 211.

<sup>248</sup> Additional passages dealing with "Difficulties of Isolating One Factor from Several Others" are numbers 4, 6, 8, 11, 12, 13, 26, 29, 140, 141 and 147.

<sup>249</sup> Sutherland, E. H., *op. cit.*, p. 142.

<sup>250</sup> See also regarding "Paucity of Data, etc.," passages numbers 29 and 108.

<sup>251</sup> Burt, C., *The Young Delinquent*, New York, D. Appleton and Company, Inc., 1925, p. 89.

misfits in colleges and industry and before they are brought to court or located in prison. The Division on Prevention of Delinquency of the National Committee for Mental Hygiene has utilized some of the methods formulated by Healy, Adler and Thom, in demonstrating child guidance in cities throughout the country. Not much can be done about methods in preventing delinquency until it is recognized that the best methods will have to be evolved through fundamental modifications in educational methods, housing plans, social relationships, dealing with unassimilated aliens, court procedures, industrial organizations, etc. What is needed most to evolve methods of preventing delinquency is orientation in the methods of those fields which affect so vitally the adjustive possibilities of every person. The sources of delinquency are not in psychiatry itself, and if psychiatry is to be preventive it must penetrate those fields that are part of the normal life of every person.<sup>252 253 254</sup>

#### D. Some Needs Evidenced by This Selected Bibliography

235. "These materials suggest, also, the great need for developing methods of group treatment in the field of delinquency, since it appears that delinquent behavior is in many cases a form of group activity."<sup>255 256</sup>

---

<sup>252</sup> Truitt, R. P., "Methods of Preventing Delinquency," *Archives of Neurology and Psychiatry*, November, 1926, Vol. XVI, pp. 613-19.

<sup>253</sup> Additional references on "Housing One Factor in Vicious Circle" are numbers 8, 10, 11, 12, 13, 110, 111, 112, 114 and 147.

<sup>254</sup> For passages indicating that housing is one small phase of the general field of crime causation see numbers 3, 8, 11, 110, 114 and 229.

<sup>255</sup> Shaw, C. R., and McKay, H. D., *op. cit.*, p. 257.

<sup>256</sup> The following quotations also refer to this subject: Numbers 78, 155 and 234.

## BIBLIOGRAPHICAL INDEX

(The numbers set after the names are the quotation numbers, found in bold face at the beginning of the respective quotations.)

- Abbott, E.  
See Breckinridge, S. P. and Abbott, E.
- Adams, T. and Heydecker, W. D.  
85, 86, 194, 230, 231
- Anderson, V. V.  
23
- Anderson, V. V. and Leonard, C. M.  
212
- Aschaffenberg, G.  
95
- Barnes, H.  
134
- Bingham, A. T.  
7, 28, 174
- Bogardus, E. S.  
197
- Bolitho, W.  
41
- Bonger, W. A.  
99, 100
- Brasol, B.  
168, 199
- Breckinridge, S. P. and Abbott, E.  
61, 94
- Burgess, E. W.  
64, 98, 109, 226
- Burke, D. W.  
81
- Burt, C.  
9, 10, 13, 107, 108, 117, 142, 165, 175, 202, 216, 233
- Bushong, E. M.  
144
- Butcher, W. L.  
120, 121, 177
- Caldwell, M. G.  
17, 173, 221
- Claghorn, K. H.  
103
- Cooley, E. J.  
27
- Coulter, E. K.  
32, 56
- Dawley  
See Fernald, Hayes, and Dawley, *et al.*
- DeQuiros, C. B.  
21
- DiTullio, B.  
218
- Dodge, P. L.  
138
- Edmondson, E. H.  
6, 161
- Elmer, M. C.  
See Burgess, E. W., 64, 109, 226
- Ellwood, C. A.  
1
- Fernald, Hayes, and Dawley, *et al.*  
4
- Ford, J.  
11, 12, 110, 111, 112, 113, 114, 115
- Gault, R. H.  
1, 5, 50, 139
- Gillin, J. L.  
14, 54, 55, 116, 203
- Glueck, B.  
24, 25, 196
- Glueck, S. and E. T.  
42, 82, 146, 171, 207, 222
- Goring, C.  
160
- Grimberg, L.  
16, 169, 217
- Handman, M. S.  
43
- Hanmer, L. F.  
188, 189
- Hayes  
See Fernald, Hayes, and Dawley, *et al.*
- Healy, W. and Bronner, A. F.  
166
- Heydecker, W. D.  
See Adams, T. and Heydecker, W. D.
- Kennedy, A. J.  
See Woods, R. A. and Kennedy, A. J.
- Kneeland, J. G.  
36, 101, 159
- Landesco, J.  
73

- Leonard, C. M.  
See Anderson, V. V. and Leonard, C. M.
- Lewis, B. G.  
57, 180, 181, 182
- Lombroso, C.  
60
- Lurie, L. A.  
219
- McKay, H. D.  
See Shaw, C. R. and McKay, H. D.
- Mendum, G.  
204
- Miller, J.  
44, 45, 46
- Myers, E. D.  
See Shaw, C. R. and Myers, E. D.
- N. Y. Commission of Housing and Regional Planning  
87, 148, 172
- N. Y. Crime Commission  
See Shulman, H. M.
- N. Y.—Regional Plan of, and Its Environs  
See Adams, T. and Heydecker, W. D.
- Ogburn, W. F.  
53
- Parsons, P. A.  
15, 167, 227
- Patrizi, M. L.  
200
- Pilcher, E.  
210
- Ploscowe, M.  
18, 19, 31, 33, 47, 88, 89, 90, 135, 149, 150, 151, 211, 223, 224
- Regional Plan of New York and Its Environs  
See Adams, T. and Heydecker, W. D.
- Reid, I. DeA.  
51
- Shaw, C. R., *et al.*  
62, 74, 75, 76
- Shaw, C. R., and McKay, H. D.  
20, 48, 52, 91, 92, 93, 152, 153, 154, 155, 156, 235
- Shaw, C. R. and Myers, E. D.  
66, 77, 78, 132
- Shulman, H. M.  
30, 58, 59, 67, 68, 79, 80, 83, 84, 118, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 133, 145, 147, 170, 176, 178, 179, 186, 187, 192, 193, 205, 206, 208, 209, 220, 228, 229
- Slawson, J.  
26, 29
- Stanley, L. L.  
213
- Sutherland, E. H.  
8, 37, 38, 63, 140, 141, 162, 163, 164, 201, 214, 215, 225, 232
- Tait, W. D.  
198
- Taylor, G.  
102
- Thrasher, F. M.  
39, 40, 65, 69, 70, 71, 119, 185
- Thurston, H. W.  
2, 183, 184
- Timmons, B. F.  
143
- Travis, T.  
136, 157
- Truitt, R. P.  
234
- Truxal, A. G.  
190, 191
- U. S. Immigration Commission  
35
- Van Waters, M.  
34
- Wile, I. S.  
104, 105, 106
- Williams, H. D.  
72
- Williams, J. H.  
22, 195
- Wines, F. H.  
3
- Wirth, L.  
49
- Woods, R. A. and Kennedy, A. J.  
96, 97, 137, 158

# APPENDIX II

## (AN APPENDIX TO CHAPTER IV, "HOUSING AND SAFETY")

### STATISTICS OF HOME CASUALTIES

**Table I. Accidental Deaths in the Home, 1929.\***

Type of accident	All ages	Ages			
		0-4	5-14	15-54	55 and over
Home accidents—total.....	30,000	6,400	2,800	7,200	13,600
Falls.....	11,600	500	500	1,600	9,000
Burns, scalds and explosions.....	6,600	2,500	1,000	1,700	1,400
Asphyxiation and suffocation.....	2,700	1,000	100	1,000	600
Poisons.....	1,900	700	200	600	400
Cuts and scratches.....	500	100	100	100	200
Other home accidents.....	6,700	1,600	900	2,200	2,000

\* Estimated by the National Safety Council.

**Table II. Home Accidents to 424,000 School Children Reporting to National Safety Council, September, 1930, to June, 1931.\***

	Killed	Injured
Falls.....	0	1,097
Burns, scalds, and explosions.....	5	303
Asphyxiation and suffocation.....	1	4
Poisons.....	0	4
Cuts and scratches.....	0	1,074
Other.....	4	704
<b>TOTAL.....</b>	<b>10</b>	<b>3,186</b>

\* *Public Safety*, October, 1931, p. 28.

**Table III. Home Injuries to Policyholders\* of Travelers Insurance Company, 1926.**

Nature of injury	Fatal	Nonfatal†
Fractures of bones.....	2	641
Dislocations of bones.....	0	141
Concussions of brain or spine.....	2	16
Amputations of fingers or toes.....	0	7
Sprains and strains.....	2	1,568
Bruises and contusions.....	1	637
Cuts or lacerations.....	0	1,245
Eyes—loss of sight.....	0	9
Eyes—not loss of sight.....	0	221
Broken teeth.....	0	40
Burns and scalds.....	3	426
Gunshot wounds.....	3	8
Infection.....	5	948
Poisoning from bites.....	1	93
Poisoning from plants.....	0	43
Poisoning, other.....	0	10
Inhalation of smoke.....	2	8
Miscellaneous.....	3	312
<b>TOTAL.....</b>	<b>24</b>	<b>6,373</b>

\* No children, few women.

† Includes all cases of disability or requiring medical attention.

Table IV. Home Accidents to Policyholders\* of Travelers Insurance Company, 1926-1930.

Nature of accident	Number of accidents	Amount of claims paid
Asphyxiation.....	49	\$ 71,217.76
Assaults.....	65	40,988.68
Bitten by animals.....	478	28,036.59
Bitten by insects.....	306	36,136.26
Burning buildings.....	35	51,531.52
Burns by acids, chemicals.....	99	13,164.25
Burns by bonfires.....	1	2,400.00
Burns by stoves, radiators.....	647	36,992.32
Burns by matches, cigars.....	195	7,476.53
Burns by steam or hot water.....	302	16,050.94
Caught in windows, doors.....	746	38,467.43
Struck by falling objects.....	1,488	118,845.52
Collisions with inanimate objects.....	1,831	154,104.05
Collisions with persons.....	343	29,628.79
Cuts on sharp instruments, broken glass.....	4,444	283,631.08
Foreign particle in eye.....	683	41,367.59
Explosion of fireworks, gasoline.....	571	51,900.19
Falls from buildings, roofs, wharves.....	389	129,647.22
Falls from chairs, tables, benches, windows.....	587	120,496.85
Falls from ladders.....	656	107,294.83
Falls from scaffolds.....	27	6,577.16
Falls while getting in or out of bed.....	298	27,177.55
Falls in bathtub, showers.....	538	63,903.29
Falls into trap doors, chutes.....	56	10,361.03
Falls into ditches, trenches.....	34	5,278.46
Falls on floors, rugs.....	2,143	262,084.32
Falls on ice.....	962	128,296.12
Falls on walks, uneven ground.....	1,575	148,675.44
Falls on stairs or steps.....	4,164	574,613.30
Falls over objects.....	689	67,114.09
Handling, lifting or carrying objects.....	1,293	125,955.78
Hand tools.....	818	44,194.60
Machinery.....	141	9,444.35
Poisoned by shrubs, plants, or other infections.....	310	73,740.99
Splinters.....	691	37,394.10
Stepped on broken glass, nails, etc.....	664	33,612.37
Stepped on or kicked by animals.....	100	10,241.29
Miscellaneous.....	658	331,621.73
TOTAL.....	29,076	\$3,339,664.37

\* Mostly men.

Table V. Rates and Percentage of Fatalities in Wage Earners' Families from Domestic Injuries, 1925-1930.\*

Means of injury	Rates per 100,000 persons	Percentage of total
Traumatism by fall.....	4.0	30.
Traumatism by firearms.....	0.3	2.
Traumatism by cutting or piercing instruments.....	0.1	1.
Burns.....	3.7	28.
Conflagration.....	0.8	6.
Poisoning by food.....	0.2	2.
Poisoning by gas.....	1.9	14.
Poisoning, other.....	0.7	5.
All other.....	1.6	12.

\* Reported by Metropolitan Life Insurance Co., *Statistical Bulletin*, Sept., 1931.

Table VI. Fatal Falls (Domestic), 1926-1928.\*

Place of falling	Number	Percentage
Stairs.....	666	33.3
Floor.....	270	13.5
Bed.....	104	5.2
Chair.....	98	4.9
Ladder.....	24	1.2
Window.....	204	10.2
Balcony, porch, fire escape.....	172	8.6
Roof.....	57	2.8
Outside (street, tree, scaffold).....	10	0.5
All others specified.....	187	9.2
Not specified.....	209	10.6
TOTAL.....	2,001	100.0

\* Reported by Metropolitan Life Insurance Co., *Statistical Bulletin*, August, 1929.

Table VII. Analysis of Claims of Aetna Life Insurance Company for Home Accidents, 1922 to 1930 Inclusive.

Cause	Number of claims	
	Indoors	Outdoors
Assaults.....	27	15
Belts, pulleys, etc.....	6	5
Bites by animals and insects.....	267	178
Burns.....	885	49
Caught in doors, windows.....	391	122
Injured by falling objects.....	635	328
Collisions with inanimate objects.....	1,311	382
Struck by passing objects.....	15	59
Collisions with persons.....	135	11
Cuts by bottles, edged tools.....	2,601	530
Electricity.....	45	0
Cyclone, tornado.....	10	1
Foreign particles in eye.....	352	186
Explosion of gas.....	206	0
Explosion of fireworks, etc.....	46	97
Falls on ice.....	5	389
Falls from buildings or from roof.....	54	142
Falls from chairs, tables, etc.....	392	64
Falls from ladders.....	247	362
Falls while getting in and out of bed.....	236	0
Falls in bathtub.....	576	0
Falls on floors, rugs or pavement.....	1,336	862
Falls on stairs or steps.....	2,265	457
Falls over objects.....	424	383
Falls, all other.....	40	115
Firearms.....	88	22
Handling, lifting or carrying objects.....	553	275
Hand tools.....	269	185
Inhalation of gas, etc.....	47	5
Machinery.....	108	42
Poisoned.....	25	163
Splinters.....	313	174
Stepped on glass, nails, etc.....	346	178
Not otherwise classified.....	416	133
TOTAL.....	14,667	5,914

Table VIII. Survey\* of Accidents† in Homes of Club Members.

Distribution by Age and Sex					
Sex	Under 5 yrs.	5-14	15-54	Above 54	Age not stated
Male.....	40	108	55	4	4
Female.....	33	62	122	29	12
TOTAL.....	73	170	177	33	16

Distribution by Type			
Cause	Number		Percentage
	Fatal	Nonfatal	
Falls.....	4	236	51
Cuts and bruises.....	0	124	26
Burns and scalds.....	8	60	15
Poisons.....	0	14	3
All other.....	1	22	5
TOTAL.....	13	456	100

\* Survey made by North Carolina Federation of Women's Clubs in cooperation with the U. S. Bureau of Standards. Six thousand two hundred ninety-two homes reported for a one-year period.

† Four hundred sixty-nine accidents were severe enough to interfere with regular duties, of which 13 were fatal. One home in 13 experienced an accident.

Table IX. Electrical Accidents \* in Homes.†

Portable appliances used in bathtubs.....	23
Portable appliances used elsewhere.....	6
Wet basements or earth.....	22
Miscellaneous.....	17
<b>TOTAL.....</b>	<b>68</b>

\* An investigation of 187 low-voltage electrical fatalities disclosed that 68 occurred in homes on ordinary lighting circuits and were distributed as above.

† Transactions of the National Safety Council, 1930, Vol. I, p. 333.

Table X. Fatal Accidents \* in 1930 in New York State (exclusive of New York City).†

Type of accidents	All accidents	Public accidents	Home accidents‡	Industrial accidents	Unknown
All accidents.....	5,311	2,662	1,528	885	236
Poisoning (gas excepted)...	120	4	74	2	40
Conflagration.....	88	2	74	8	4
Burns, (conflagration excepted).....	225	9	167	35	14
Mechanical suffocation...	58	2	51	4	1
Irrespirable or poison gas..	142	17	105	15	5
Drowning.....	452	409	13	30	...
Traumatism by:					
Firearms.....	83	39	27	2	15
Cutting and piercing instruments.....	40	4	21	13	2
Falls.....	1,273	161	883	158	71
Mines and quarries.....	14	...	...	14	...
Machines.....	106	5	5	95	1
Railroads.....	249	149	...	99	1
Street cars.....	30	25	...	5	...
Automobiles.....	1,867	1,688	17	161	1
Other vehicles.....	147	89	7	50	1
Landslide, other crushing..	87	7	9	70	1
Injuries by animals.....	31	...	6	24	1
Starvation.....	1	...	1	...	...
Excessive cold.....	10	3	5	...	2
Excessive heat.....	26	2	7	7	10
Lightning.....	10	8	1	1	...
Other electric shocks....	60	9	4	44	3
Fracture (cause not specified).....	35	8	7	8	12
Other external violence...	157	22	44	40	51

\* Analyzed by State Department of Health.

† United States Daily, September 18, 1931, p. 7.

‡ Of home accidents, falls = 58%; burns = 11%; gassing = 7%.



## APPENDIX III

(AN APPENDIX TO CHAPTER IV, "HOUSING AND SAFETY")

### STATISTICS OF FIRE LOSSES

**Table I. Loss of Life from Conflagrations and Burns in U. S. Registration Districts.\***

Class	1921	1922	1923	1924	1925	1926	1927	1928	Total	Average
Conflagrations..	928	1,143	1,445	1,628	1,408	1,558	1,519	1,760	11,389	1,424
Burns										
Playing with fire.....	447	436	432	418	416	359	416	388	3,312	414
Falling into fire.....	113	145	164	211	179	180	131	196	1,319	165
Molten metal..	14	11	22	24	22	19	22	13	147	18
Scalds.....	1,371	1,407	1,394	1,365	1,291	1,271	1,235	1,163	10,497	1,312
Other causes..	3,384	3,963	4,491	4,877	4,467	4,658	4,285	4,563	34,688	4,336
TOTAL....	6,257	7,105	7,948	8,523	7,783	8,045	7,608	8,083	61,352	7,669
Less molten metal burns and scalds..	1,385	1,418	1,416	1,389	1,313	1,290	1,257	1,176	10,644	1,331
Net total of burns.....	4,872	5,687	6,532	7,134	6,470	6,755	6,351	6,907	50,708	6,338

\* Data from U. S. Bureau of the Census Reports.

**Table II. Total Loss of Life from Conflagrations and Burns.\***

Year	From conflagration	From burns excluding molten metal and scalds	Total, both causes	Percentage of U. S. population in death registration area	Computed from both causes for continental U. S.
1921.....	928	3,944	4,872	82.2	5,927
1922.....	1,143	4,544	5,687	85.3	6,667
1923.....	1,445	5,087	6,532	87.6	7,457
1924.....	1,628	5,506	7,134	88.5	8,061
1925.....	1,408	5,062	6,470	89.4	7,237
1926.....	1,558	5,197	6,755	89.8	7,522
1927.....	1,519	4,832	6,351	91.3	6,956
1928.....	1,760	5,147	6,907	95.3	7,248
1929.....	1,710	5,035	6,745	95.7	7,048
AVERAGE PER YEAR.....					7,125

\* Data from U. S. Bureau of the Census Reports.

Table III.\* Distribution According to Classification of Deaths to Injuries as the Result of Fires in the United States.†

	Deaths		Injuries	
	Number	Percentage	Number	Percentage
I. Location				
City.....	1,710	65.0	5,138	80.1
Country.....	873	33.2	1,205	18.8
Not stated.....	48	1.8	72	1.1
TOTAL.....	2,631	100.0	6,415	100.0
II. Age and sex				
Male adult.....	953	36.22	3,697	57.6
Female adult.....	732	27.82	1,544	24.1
Male, 10-16.....	79	3.0	237	3.7
Female, 10-16.....	78	3.0	126	2.0
Child under 10.....	782	29.72	725	11.3
Male, age not stated.....	6	.2	72	1.1
Female, age not stated....	1	.04	14	.2
TOTAL.....	2,631	100.00	6,415	100.0
III. Type of occupancy involved				
No building involved.....	224	8.5	818	12.8
Dwelling.....	1,634	62.1	2,738	42.7
Apartment, hotel, rooming house.....	102	3.9	358	5.6
School, church, etc.....	10	.4	80	1.2
Theatre, lodge room, etc....	11	.4	74	1.2
Industrial.....	127	4.9	497	7.7
Mercantile.....	40	1.5	514	8.0
Office building.....	17	.7	80	1.2
Garage.....	21	.8	222	3.5
Barns and other farm buildings.....	27	1.0	93	1.5
Warehouse.....	3	.1	34	.5
Lumber yard.....	.....	.....	21	.3
Automobile.....	116	4.4	334	5.2
Boat.....	33	1.3	70	1.1
Railway car.....	19	.7	36	.6
Miscellaneous.....	69	2.6	216	3.4
Not stated.....	35	1.3	157	2.4
Hospital, jail, etc.....	143	5.4	73	1.1
TOTAL.....	2,631	100.0	6,415	100.0

\* Data consolidated from six surveys of three months each in a dozen typical states.

† Adapted from "Fire Waste Council's Casualty Statistics," *National Fire Protection Association Quarterly*, April, 1930, Vol. 23, pp. 383-384.

Table IV.\* Causes of Casualties † in Connection with Fires in the United States.

Causes	Deaths		Injuries	
	Number	Per-centage	Number	Per-centage
I. Burns causing casualty				
1. Burning structures				
Finished buildings.....	510	19.4	512	8.0
Building construction, tents, etc.....	9	.3	21	.3
Autos and other transportation carriers.....	106	4.0	132	2.1
TOTAL.....	625	23.7	665	10.4
2. Prairie or forest fires.....	8	.3	17	.3
3. Explosions				
Explosives, firearms, etc.....	32	1.2	113	1.8
Dust explosions.....	3	.1	13	.2
Mine explosions.....	2	.1	16	.2
Gas explosions.....	119	4.5	591	9.2
Others.....	55	2.1	258	4.0
TOTAL.....	211	8.0	991	15.4
4. Inflammable liquids				
In lighting devices.....	47	1.8	115	1.8
In heating devices.....	381	14.5	749	11.7
In power devices.....	67	2.5	292	4.6
In cleaning operations.....	49	1.9	253	3.9
Others.....	107	4.1	370	5.7
TOTAL.....	651	24.7	1,779	27.7
5. Open flames.....	558	21.2	703	11.0
6. Carelessness with matches.....	125	4.8	248	3.9
7. Careless smokers.....	60	2.3	188	2.9
8. Use of electrical equipment.....	20	.8	93	1.4
9. Use of fireworks.....	14	.5	121	1.9
10. Celebrations				
Christmas.....	3	.1	13	.2
Other holidays.....	1	.04	9	.1
Others.....	1	.04	...	...
TOTAL.....	5	.2	22	.3
11. Miscellaneous.....	75	2.9	157	2.4
TOTAL BURNS.....	2,352	89.4	4,984	77.6
II. Suffocation or inhalation of smoke and gases..	199	7.6	360	5.6
III. Exposure from fire.....	10	.4	180	2.8
IV. Panic, jumping from buildings, collapse of buildings, etc.....	22	.8	164	2.6
V. General accidents				
1. In response to alarms, falling from ladders, etc.....	20	.7	393	6.2
2. Other accidents incident to fire.....	11	.4	275	4.3
3. Traffic accidents due to false alarms.....	4	.2	28	.4
TOTAL (General accidents).....	35	1.3	696	10.9
VI. Shock.....	13	.5	31	.5
GRAND TOTAL.....	2,631	100.0	6,415	100.0

\* Data consolidated from six surveys of three months each in a dozen typical states.

† Adapted from "Fire Waste Council's Casualty Statistics," *National Fire Protection Association Quarterly*, April, 1930, Vol. 23, pp. 383-384.

**Table V. Fatalities by Fire in Dwellings.\***

Burns and ignition of clothing.....	202
Construction (see Table VI).....	259
Fire fighting and salvage.....	29
Miscellaneous.....	79
Details not stated.....	79
<b>TOTAL.....</b>	<b>648</b>

\* Compiled by National Fire Protection Association from reports of 309 fires. From *National Fire Protection Association Quarterly*, April, 1927, Vol. 20, pp. 387-388.

**Table VI. Fatalities \* Which Would Have Been Prevented by Superior Construction.**

Fire started at bottom of stairway or in basement and spread up open stairway. No other exits. Loss of life due to suffocation or lack of exits or both.....	192
Suffocation while asleep.....	32
Suffocation while awake.....	26
Invalid's or aged person's escape cut off.....	8
Jumping from burning building.....	1
<b>TOTAL.....</b>	<b>259</b>

\* Analysis of fatalities attributed to "Construction" in Table V, q. v. Compiled by National Fire Protection Association from reports of 309 fires. From *National Fire Protection Association Quarterly*, April, 1927, pp. 387-388.

**Table VII. Property Losses by Fire in the United States.**

Year	Whole country		Per capita
	Population	Total loss*	
1921.....	108,208,000	\$495,406,012	\$4.58
1922.....	109,873,000	506,541,001	4.61
1923.....	111,537,000	535,372,782	4.80
1924.....	113,302,000	549,062,124	4.85
1925.....	114,867,000	559,418,184	4.87
1926.....	116,532,000	561,980,751	4.82
1927.....	118,197,000	472,933,969	4.00
1928.....	119,861,000	464,607,102	3.87
1929.....	121,526,000	459,445,778	3.78
1930.....	123,191,000	499,739,132	4.05

\* Estimated from records of the National Board of Fire Underwriters.

Table VIII. Dwelling Fires, Compared with Total Fires.\*

State	Total		Dwellings		Ratio of dwellings to total	
	Number of fires	Loss	Number of fires	Loss	Number of fires	Loss
Illinois.....	16,744	\$21,226,000	8,735	\$ 5,140,000	52%	24%
Indiana.....	5,846	9,670,000	3,748	3,220,000	64	33
Iowa.....	5,232	6,142,000	3,182	2,263,278	60	37
Kansas.....	3,445	4,034,586	1,795	1,272,228	52	32
Louisiana.....	5,039	6,003,600	3,424	2,421,800	67	40
Massachusetts	9,276	18,100,000	5,117	6,809,000	55	38
Oregon.....	5,100	5,107,000	3,386	1,537,100	66	30
TOTAL...	50,682	\$70,283,186	29,387	\$22,663,406	58%	32%

\* Fire Loss for Calendar Year 1930, or latest twelve-month period reported to the Department of Fire Record of the National Fire Protection Association.

Table IX. Dwelling House Losses, 1919-1923, Inclusive.\*

Causes	Total losses for 5 years	Percentage of losses
Defective chimneys and flues.....	\$ 36,991,228	11.4
Fireworks, firecrackers, etc.....	865,674	0.3
Gas, natural and artificial.....	4,271,910	1.3
Hot ashes and coals, open fires.....	7,845,665	2.4
Ignition of hot grease, tar, wax, asphalt, etc.....	938,889	0.3
Matches—smoking.....	19,129,382	6.0
Open lights.....	5,607,416	1.7
Petroleum and its products.....	16,423,245	5.1
Rubbish and litter.....	968,766	0.3
Sparks on roofs.....	31,379,884	9.7
Steam and hot-water pipes.....	174,505	0.1
Stoves, furnaces, boilers and their pipes.....	24,348,965	7.6
Electricity.....	15,445,964	4.8
Explosions.....	631,380	0.2
Exposure, including conflagration.....	40,530,128	12.6
Sparks from machinery.....	92,149	0.0
Incendiarism.....	1,531,909	0.5
Lightning.....	6,284,594	1.9
Miscellaneous known causes.....	2,102,081	0.7
Sparks from combustion.....	1,631,483	0.5
Spontaneous combustion.....	4,479,388	1.4
Unknown causes.....	100,635,999	31.2
TOTAL.....	\$322,310,604	100.0

\* Data from National Board of Fire Underwriters.

**Table X. Causes of Dwelling House Fires, Massachusetts, 1923-1929, Inclusive.\***

Causes	Total	Percentage of total
Boiling over of fats.....	251	1.1
Burning soot.....	574	2.6
Careless fumigation.....	18	0.1
Careless smoking.....	3,032	13.5
Careless use of matches.....	2,404	10.7
Children and matches.....	1,821	8.1
Defective chimney.....	2,103	9.4
Defective construction.....	52	0.2
Defective heating apparatus.....	233	1.0
Defective oil burners.....	183	0.9
Electrical causes.....	831	3.7
Escaping gas igniting.....	98	0.4
Explosion of lamp or stove.....	320	1.4
Fireworks.....	434	1.9
Friction.....	29	0.1
Gas and electric irons.....	337	1.5
Heating and lighting apparatus igniting combustible material.....	1,567	7.0
Hot ashes.....	670	3.0
Incendiary.....	291	1.3
Lighting fire with kerosene or gasoline.....	48	0.2
Lightning.....	262	1.2
Malicious mischief.....	160	0.7
Mechanics' torches.....	102	0.5
Miscellaneous.....	90	0.4
Oil burning apparatus, improper care of.....	75	0.3
Overheated cooking or heating apparatus.....	1,141	5.1
Rats and matches.....	227	1.0
Sparks from bonfires, forest or grass fires.....	230	1.1
Sparks from chimney.....	1,783	8.0
Sparks from furnaces, stoves, etc.....	519	2.3
Sparks from locomotive.....	47	0.2
Spontaneous ignition.....	1,033	4.6
Thawing water pipes.....	211	1.0
Unknown.....	531	2.4
Unknown suspicious.....	279	1.3
Volatile oils and inflammable liquids.....	392	1.8
<b>TOTAL.....</b>	<b>22,378</b>	<b>100.0</b>

\* Data supplied by the National Fire Protection Association.

**Table XI. Causes of Dwelling House Fires, Philadelphia, Pa., 1923-1929, Inclusive.\***

Causes	Total	Percentage of total
Alcohol explosions, stills.....	67	0.4
Boiling lard, oils, etc.....	449	3.0
Candles.....	253	1.7
Chimneys.....	1,248	8.3
Cigars and cigarettes.....	220	1.5
Coal-oil lamps and stoves.....	555	3.7
Defective flues.....	770	5.1
Electricity.....	351	2.3
Explosions.....	19	0.1
Fireworks.....	14	0.1
Gas and electric irons.....	243	1.6
Gas jets.....	279	1.8
Gas stoves and ranges.....	241	1.6
Gasoline explosions.....	75	0.5
Gasoline lamps and torches.....	87	0.6
Heaters.....	285	1.9
Hot ashes and coals.....	410	2.7
Incendiary.....	17	0.1
Incendiary, supposed.....	10	0.1
Lightning.....	17	0.1
Matches.....	4,397	29.2
Miscellaneous known causes.....	151	1.0
Oil burners.....	102	0.7
Ranges, coal.....	146	1.0
Rubbish.....	1,213	8.0
Smoking.....	963	6.4
Sparks from chimneys, stacks.....	371	2.5
Spontaneous ignition.....	15	0.1
Stoves.....	686	4.5
Unknown.....	1,411	9.4
TOTAL.....	15,065	100.0

\* Data supplied by the National Fire Protection Association.

Table XII. Point of Origin of Dwelling Fires, New York City, 1929.\*

Point of origin	Dwellings	Boarding and lodging houses	Apartments and tenements	Total	Percentage of total
Areaways, porches, roofs, etc.....	297	24	487	808	7.0
Airshafts.....	14	5	85	104	0.9
Attics.....	57	0	2	59	0.5
Awings.....	114	7	637	758	6.6
Bathrooms and toilets.....	42	18	109	169	1.5
Bedrooms.....	323	176	879	1,378	11.9
Boiler and furnace rooms.....	108	14	255	377	3.3
Cellars.....	574	28	812	1,414	12.3
Chimney fires.....	91	13	167	271	2.4
Closets.....	120	21	184	325	2.8
Defective flues.....	188	16	179	383	3.3
Dining rooms.....	135	4	166	305	2.6
Dumbwaiter and elevator shafts.....	6	2	433	441	3.8
Hallways and corridors.....	73	19	285	377	3.3
Kitchens.....	563	22	1,271	1,856	16.1
Parlors.....	195	18	527	740	6.4
Partitions, under floors, etc.....	52	14	95	161	1.4
Storerooms.....	30	2	67	99	0.9
Stoves.....	381	25	816	1,222	10.6
Vacant floors and apartments.....	51	1	218	270	2.3
Miscellaneous.....	5	2	3	10	0.1
TOTAL.....	3,419	431	7,677	11,527	100.0

\* Data supplied by the National Fire Protection Association.



Table XIII. Partial List of Conflagrations \* Which Have Occurred in the United States from 1832 to 1931.

Date	City	Remarks	Loss
Jan. 7, 1832	Raleigh, N. C.	70 buildings destroyed	\$ 100,000
Apr. 15, 1833	Cumberland, Md.	140 " " (entire town)	175,000
1835	Boston, Mass.	50 " " Blackstone St.	100,000
June 5, 1835	Charleston, S. C.	182 " "	200,000
Aug. 25, 1835	Charlestown, Mass.	70 " "	200,000
Dec. 16, 1835	New York, N. Y.	530 " "	15,000,000
Apr. 4, 1837	Utica, N. Y.	40 " "	100,000
Apr. 27, 1838	Charleston, S. C.	1,158 " "	2,000,000
Sept. 6, 1839	New York, N. Y.	46 " "	1,000,000
Oct. 5, 1839	Philadelphia, Pa.	52 " "	2,000,000
Oct. 7, 1839	Mobile, Ala.	600 " "	2,000,000
Dec. 31, 1839	Yazoo City, Miss.	70 " "	200,000
Jan. 17, 1840	Wilmington, N. C.	150 " "	500,000
1840	New Orleans, La.	City Exchange and other buildings	1,000,000
Apr. 12, 1842	Columbia, S. C.	30 buildings destroyed	200,000
Apr. 18, 1843	Newburn, N. C.	120 " "	150,000
Apr. 30, 1843	Wilmington, N. C.	200 " "	400,000
May 25, 1843	Tallahassee, Fla.	250 " "	300,000
May 18, 1844	New Orleans, La.	300 " "	600,000
Nov. 4, 1844	Wilmington, N. C.	50 " "	175,000
Jan. 29, 1845	Wetumpka, Ala.	40 " "	200,000
Apr. 10, 1845	Pittsburgh, Pa.	1,000 " "	1,500,000
June 1, 1845	Fayetteville, La.	100 " "	500,000
July 19, 1845	New York, N. Y.	450 " "	6,000,000
Dec. 10, 1845	Bridgeport, Conn.	30 " "	150,000
June 3, 1846	Warren, O.	100 " "	150,000
July 13, 1846	Nantucket, Mass.	300 " "	1,000,000
Oct. 9, 1846	Columbus, Ga.	150 " "	200,000
1846	Albany, N. Y.	Several fires of minor conflagration size	1,000,000
Aug. 10, 1848	Albany, N. Y.	439 buildings destroyed	3,000,000
May 13, 1849	Watertown, N. Y.	Business section	250,000
May 17, 1849	St. Louis, Mo.	425 buildings and 27 steamboats destroyed	3,500,000
Aug. 9, 1849	Plattsburgh, N. Y.	65 buildings destroyed	200,000
Sept. 27, 1849	Vicksburg, Miss.	20 " "	100,000
Sept. 27, 1849	Oswego, N. Y.	100 " "	200,000
Dec. 24, 1849	San Francisco, Calif.	400 " "	1,250,000
Feb. 16, 1850	New Orleans, La.	30 " "	500,000
Feb. 18, 1850	Macon, Ga.	20 " "	100,000
May 4, 1850	San Francisco, Calif.	" "	1,000,000
June 6, 1850	Alexandria, La.	40 " "	400,000
July 10, 1850	Philadelphia, Pa.	400 " "	1,500,000
July 14, 1850	San Francisco, Calif.	300 " "	3,000,000
Sept. 17, 1850	Boston, Mass.	140 " "	500,000
Oct. 1, 1850	San Francisco, Calif.	150 " "	500,000
Jan. 10, 1851	New Orleans, La.	16 " "	500,000
Mar. 12, 1851	Nevada, Calif.	General conflagration (1851 or 1857)	1,500,000
May 2, 1851	San Francisco, Calif.	1,250 buildings destroyed	3,500,000
May 14, 1851	Stockton, Calif.	Mercantile section	1,000,000
June 22, 1851	San Francisco, Calif.	500 buildings destroyed	2,000,000
Sept. 26, 1851	Buffalo, N. Y.	500 " "	600,000
Mar. 1852	New Orleans, La.	Warehouses	5,000,000
Apr. 1, 1852	Chillicothe, O.	¼ of entire city	200,000
July 10, 1852	Boston, Mass.	50 buildings destroyed	400,000
Oct. 11, 1852	Cleveland, O.	25 " "	100,000
Nov. 10, 1852	Sacramento, Calif.	2,500 " "	3,000,000
May 1853	Concord, N. H.	⅓ of city, including business dist.	600,000
June 5, 1853	Oswego, N. Y.	15 blocks destroyed	1,500,000
Nov. 1, 1853	Oregon Bay, Wis.	30 buildings destroyed	100,000

\* For the purposes of this compilation fires involving more than five buildings and occasioning a large loss have been classed as conflagrations. Large-loss fires involving a single building or a group of buildings forming a single occupancy have not been included in this list.

This list is not complete in that it does not include a great many fires of conflagration proportions which have occurred in small communities where the property values have been low and the total loss has not exceeded \$500,000 even though the fire has been of considerable extent.

The data were supplied by the National Fire Protection Association.

Table XIII. (Continued.)

Date	City	Remarks	Loss
Feb. 4, 1854	New Orleans, La.	Several steamboats—25 lives	\$ 1,000,000
June 14, 1854	Worcester, Mass.	15 buildings destroyed	500,000
July 5, 1854	Philadelphia, Pa.	40 " "	500,000
Aug. 25, 1854	Troy, N. Y.	300 " "	1,000,000
Aug. 25, 1854	Waldoboro, Me.	150 " "	500,000
Aug. 25, 1854	Milwaukee, Wis.	30 " "	750,000
Oct. 28, 1854	Cleveland, O.	Business buildings destroyed	400,000
Oct. 28, 1854	Jersey City, N. J.	30 buildings destroyed	1,000,000
May 1, 1856	Philadelphia, Pa.		1,000,000
July 4, 1856	Corning, N. Y.	40 buildings	130,000
July 4, 1856	Syracuse, N. Y.	100 " "	1,000,000
1859	Key West, Fla.		2,750,000
Dec. 12, 1861	Charleston, S. C.	576 buildings destroyed	5,000,000
1862	Troy, N. Y.	671 " "	3,000,000
Feb. 17, 1865	Columbia, S. C.	Large part of city	1,700,000
1865	Philadelphia, Pa.	50 buildings destroyed	500,000
July 4, 1866	Portland, Me.	1,800 " "	10,000,000
Jan. 28, 1868	Chicago, Ill.	30 " "	2,104,800
June 1868	Marquette, Mich.	Large part of city	1,250,000
Oct. 7, 1871	Chicago, Ill.	17,430 buildings destroyed	168,000,000
Oct. 8, 1871	Manistee, Mich.	Town destroyed by forest fires	1,250,000
1871	Wisconsin	Forest fires and towns	1,000,000
Nov. 9, 1872	Boston, Mass.	776 buildings destroyed	75,000,000
May 29, 1873	Boston, Mass.	27 " "	1,300,000
1873	Baltimore, Md.	Clay Street conflagration	1,000,000
Dec. 14, 1874	Boston, Mass.	11 buildings destroyed	385,000
1874	Chicago, Ill.	360 " "	5,000,000
1875	Oshkosh, Wis.	34 of town destroyed	3,500,000
1875	Virginia City, Nev.	Stores and dwellings	3,750,000
1876	Marblehead, Mass.	50 buildings destroyed	500,000
Dec. 28, 1879	Boston, Mass.	11 " " or damaged	905,390
1882	Haverhill, Mass.	Business section	2,375,000
1885	Galveston, Tex.		1,500,000
1886	Key West, Fla.		1,400,000
Feb. 1888	Buffalo, N. Y.		1,000,000
Dec. 1888	Marblehead, Mass.	40 buildings destroyed	553,000
Feb. 1889	Buffalo, N. Y.		1,097,000
Apr. 1889	New York, N. Y.		1,907,000
June 1889	Seattle, Wash.	Mercantile section	6,626,000
July 1889	Bakersfield, Calif.		925,000
July 1889	Ellensburg, Wash.		1,100,000
Aug. 1889	Spokane, Wash.	Large part of city	4,800,000
Nov. 9, 1889	Lynn, Mass.	319 buildings destroyed	5,000,000
Nov. 27, 1889	Boston, Mass.	15 " " 35 damaged	3,857,200
July 1891	Cincinnati, O.		1,350,000
Nov. 1891	St. Louis, Mo.		1,200,000
Feb. 1892	New Orleans, La.		1,100,000
Oct. 28, 1892	Milwaukee, Wis.	46 acres of buildings destroyed	4,944,300
Jan. 10, 1893	Boston, Mass.	9 buildings destroyed or damaged	620,000
Mar. 10, 1893	Boston, Mass.	19 " " " "	2,968,000
June 1893	Fargo, N. D.		1,850,000
Dec. 1893	Buffalo, N. Y.		800,000
Jan. 1894	Toledo, O.		729,200
May 15, 1894	Boston, Mass.	214 " " " " "	375,000
Jan. 1895	Macon, Ga.		700,000
Apr. 1896	Cripple Creek, Colo.		2,000,000
May 1897	Pittsburgh, Pa.		2,000,000
1897	Knoxville, Tenn.		1,000,000
Feb. 1898	Pittsburgh, Pa.		1,400,000
Nov. 1899	Memphis, Tenn.		1,400,000
June 1900	Bloomington, Ill.		1,800,000
June 1900	Hoboken, N. J.	Steamships, over 400 lives	4,600,000
1900	Prescott, Ariz.		996,000
1901	Jacksonville, Fla.		11,000,000
Feb. 1902	Paterson, N. J.	325 buildings destroyed	5,500,000
Feb. 1902	Waterbury, Conn.		1,400,000
1902	Atlantic City, N. J.	Mercantile section	669,000

Table XIII. (Continued.)

Date	City	Remarks	Loss
Feb. 7, 1903	Cincinnati, O.		\$ 1,265,000
Feb. 7, 1904	Baltimore, Md.	140 acres in business section destroyed	50,000,000
1904	Rochester, N. Y.	Business section	3,000,000
1904	Yazoo City, Miss.	Large part of city	1,800,000
1904	Sioux City, Ia.	Business section	1,860,000
Apr. 18, 1906	San Francisco, Calif.	28,000 buildings destroyed	350,000,000
Nov. 8, 1907	Superior, Wis.	Wharves and warehouses destroyed	1,600,000
1907	New York, N. Y.	Coney Island amusement resort	1,500,000
Mar. 1, 1908	Tampa, Fla.	17 blocks of small frame buildings destroyed	450,000
Apr. 12, 1908	Chelsea, Mass.	3,500 buildings destroyed	12,000,000
May 8, 1908	Atlanta, Ga.	30 " "	1,300,000
July 8, 1908	Boston, Mass.	Piers and wharves at North Boston destroyed	1,500,000
July 20, 1908	Cottonwood, Ida.	Business section destroyed	300,000
Aug. 30, 1908	New Orleans, La.	Business buildings destroyed	1,400,000
Sept. 1908	Chisholm, Minn.	Entire town destroyed	1,700,000
Apr. 1909	Fort Worth, Tex.	32 blocks destroyed	800,000
July 4, 1909	Nampa, Ida.	25 buildings destroyed	250,000
Aug. 11, 1909	Monticello, N. Y.	36 " "	500,000
Aug. 22, 1909	Decatur, Ill.	22 " "	500,000
Sept. 5, 1909	Poplar Bluff, Mo.	31 " "	500,000
Dec. 2, 1909	Baltimore, Md.	6 " "	450,000
Mar. 5, 1910	Winlock, Wash.	Business section destroyed	600,000
July 18, 1910	Wallace, Ida.	" "	1,000,000
Aug. 1910	Boston, Mass.	Several lumber yards	500,000
Dec. 3, 1910	Petersburg, Va.	8 buildings destroyed	350,000
Dec. 1910	Evansville, Ind.	10 " "	750,000
1910	Minnesota	Forest fires	3,500,000
Jan. 1911	Troy, N. Y.	5 buildings destroyed	375,000
Jan. 3, 1911	Little Rock, Ark.	Business buildings destroyed	450,000
Mar. 1911	Payette, Ala.	48 buildings destroyed	350,000
Apr. 30, 1911	Bangor, Me.	55 acres of buildings destroyed	3,500,000
May 27, 1911	New York, N. Y.	Coney Island amusement resort	2,225,000
June 1911	Whitewright, Tex.	78 buildings destroyed	250,000
July 1911	West Salem, Wis.	32 " "	350,000
July 1911	Alpena, Mich.	Business district destroyed	400,000
Nov. 1911	Jamestown, Kans.	30 buildings destroyed	250,000
Nov. 1911	Gainesville, Ga.	8 " "	250,000
Dec. 31, 1911	Washington C.H., O.	Business buildings destroyed	1,250,000
Feb. 21, 1912	Houston, Tex.	140 buildings destroyed	4,000,000
Apr. 1912	Butte, Mont.	14 " "	328,000
Sept. 3, 1912	Ocean Park, Calif.	Hotel and stores destroyed	1,125,000
Feb. 2, 1913	Savannah, Ga.	Wharf and railroad property	1,500,000
May 20, 1913	Jersey City, N. J.	40 buildings destroyed	800,000
Sept. 1913	Hot Springs, Ark.	518 " "	2,250,000
Dec. 1913	Cohoes, N. Y.	6 large mill buildings	500,000
Mar. 23, 1914	Durham, N. C.	Business buildings destroyed	750,000
Apr. 2, 1914	St. Augustine, Fla.	5 hotels and 2 blocks destroyed	750,500
June 25, 1914	Salem, Mass.	1,600 buildings destroyed	8,000,000
Dec. 17, 1914	Pottsville, Pa.	Business buildings destroyed	2,000,000
Sept. 4, 1915	Newport News, Va.	Waterfront property destroyed	2,000,000
Sept. 27, 1915	Ardmore, Okla.	Gasoline explosion wrecked town, 43 lives	1,000,000
Nov. 1915	Avalon, Calif.	Hotel and mercantile buildings destroyed	1,000,000
Dec. 9, 1915	Hopewell, Va.	Entire town destroyed	1,200,000
Jan. 7, 1916	Youngstown, O.	Business buildings destroyed	800,000
Jan. 11, 1916	Ottumwa, Ia.	5 store buildings destroyed	500,000
Feb. 16, 1916	Fall River, Mass.	25 buildings destroyed	2,000,000
Mar. 21, 1916	Paris, Tex.	1,440 " "	10,000,000
Mar. 22, 1916	Nashville, Tenn.	648 " "	1,500,000
Mar. 22, 1916	Augusta, Ga.	682 " "	4,250,000
May 1916	Sandusky, O.	13 " "	500,000
Sept. 1916	Phoenix, N. Y.	Entire business section destroyed	684,000
May 21, 1917	Atlanta, Ga.	1,938 buildings destroyed	5,500,000
Jan. 13, 1918	Indianapolis, Ind.	Several business buildings destroyed	1,000,000
Mar. 26, 1918	Jersey City, N. J.	" " " "	2,000,000
Apr. 4, 1918	Kansas City, Mo.	21 buildings destroyed	2,000,000
Aug. 24, 1918	Owensboro, Ky.	Distillery and warehouses	1,500,000
Oct. 1918	Minnesota	Forest fires, 400 lives	9,000,000

Table XIII. (Continued.)

Date	City	Remarks	Loss
1918	Benton Harbor, Mich.	4 business buildings destroyed	\$ 500,000
1918	Johnstown, Pa.	Business district destroyed	1,000,000
1918	Marianna, Ark.	" " "	750,000
1918	Bristol, Va.	" " "	1,500,000
1918	Joplin, Mo.	" " "	1,000,000
Feb. 14, 1919	Savannah, Ga.	Warehouses and railroad terminal destroyed	1,000,000
Feb. 1919	Albany, Ga.	½ city block destroyed	500,000
Mar. 1919	Winber, Pa.	Business section destroyed	700,000
Aug. 1, 1919	Detroit, Mich.	Factory, lumber yard, hotel, etc., destroyed	1,675,000
Aug. 1919	Bliss, N. Y.	71 buildings destroyed	500,000
Aug. 1919	Missoula, Mont.	Forest fires	800,000
Sept. 13, 1919	Brooklyn, N. Y.	Oil refinery and other plants destroyed	1,500,000
Sept. 1919	Los Banos, Calif.	Business section destroyed	700,000
Sept. 1919	Wyoming	Big Horn Forest, standing timber	1,300,000
Nov. 1919	Waggoner, Tex.	Business section destroyed	1,000,000
1920	Grand View, Tex.	136 buildings destroyed	2,000,000
1920	Bradford, O.	3 " "	500,000
Jan. 5, 1921	Athens, Ga.	3 blocks destroyed	800,000
Nov. 26, 1921	Augusta, Ga.	9 buildings destroyed	1,000,000
Dec. 4, 1921	Yuma, Ariz.	25 " "	1,000,000
Mar. 15, 1922	Chicago, Ill.	13 " "	5,000,000
Apr. 13, 1922	Berkeley, Va.	100 " "	1,000,000
June 15, 1922	Arverne, N. Y.	141 " "	2,000,000
Sept. 23, 1922	Atlanta, Ga.	9 " "	750,000
Dec. 1, 1922	New Bern, N. C.	40 city blocks destroyed	2,000,000
Dec. 8, 1922	Astoria, Ore.	30 " "	8,000,000
Apr. 1923	Burke, W. Va.	Business section destroyed	1,000,000
May 1923	Hot Springs, Ark.	Business buildings destroyed	1,500,000
July 13, 1923	Burke Canyon, Ida.	Mining town destroyed	750,000
Sept. 17, 1923	Berkeley, Calif.	584 buildings destroyed	6,000,000
Oct. 6, 1923	Asbury Park, N. J.	Hotels and stores destroyed	500,000
Dec. 1923	Charlotte, N. C.	Business buildings destroyed	1,500,000
Nov. 14, 1924	Jersey City, N. J.	2 city blocks destroyed	600,000
Dec. 28, 1924	Corinth, Miss.	10 buildings destroyed	500,000
Mar. 18, 1925	Palm Beach, Fla.	2 large hotels and other buildings destroyed	1,750,000
May 14, 1925	Ausable Forks, N.Y.	50 buildings destroyed	1,000,000
Sept. 4, 1925	Shreveport, La.	196 " "	1,000,000
Dec. 3, 1925	Council Bluffs, Ia.	8 " "	1,000,000
1925	E. Liverpool, O.	16 " "	1,000,000
Feb. 1926	South Bend, Ind.	9 " "	3,000,000
Mar. 1, 1926	Newport, Ark.	270 " "	1,500,000
June 4, 1927	Montgomery, Ala.	22 " "	1,500,000
Oct. 11, 1927	Ocean City, N. J.	30 " "	810,925
Feb. 2, 1928	Fall River, Mass.	107 " "	2,514,000
Mar. 29, 1928	Crisfield, Md.	90 " "	700,000
July 16, 1928	Helena, Mont.	7 " "	1,500,000
Nov. 6, 1928	Buffalo, N. Y.	7 " "	335,000
July 2, 1929	Mill Valley, Calif.	130 " "	1,500,000
May 4, 1930	Nashua, N. H.	350 " "	2,000,000
June 7, 1931	Norfolk, Va.	60 " "	1,250,000
June 27, 1931	Spencer, Ia.	39 " "	800,000

## APPENDIX IV

(AN APPENDIX TO CHAPTER IV, "HOUSING AND SAFETY")

### DIGEST OF FACTS ON FATAL AND NONFATAL ACCIDENTAL INJURIES IN THE HOME IN RECENT YEARS<sup>1</sup>

#### Home-Accident Fatalities in the General Population

In the United States there occur annually about 30,000 deaths from accidental injuries which arise out of domestic activities. These deaths accompany approximately 4,500,000 disabling and serious injuries in the same sphere of activity. These accidental deaths in the home account for 30 per cent of all accidental deaths in the United States, and are not far from the number which arises out of motor vehicle operation annually.<sup>2</sup>

Until recently, no data of any kind were available on this major element in the country's accident problem. In order to meet the need for facts on home hazards, the Metropolitan Life Insurance Company began in 1920 to collect data on home-accident fatalities. An abstract of the facts for the period 1925 to 1930 is given in the following section.

#### Home-Accident Fatalities among Insured Wage Earners and Members of Their Families

Among the persons insured in the Industrial Department of the Metropolitan Life Insurance Company between 1925 and 1930, home-accident fatalities occurred at a rate of 13.3 per 100,000 policyholders. Burns accounted for 27.8 per cent of the fatal home accidents, falls for 30 per cent and gas poisoning for 14.6 per cent of the home-accident deaths.

The 1930 death rate for home accidents was only 5 per cent lower than that for 1925, and this reflects largely the decline for burns and scalds and for illuminating gas poisonings. The death

---

<sup>1</sup> Prepared for the Committee on Housing and the Community by Louis I. Dublin, Ph.D., Third Vice President and Statistician, Metropolitan Life Insurance Company, New York City.

<sup>2</sup> National Safety Council, *Accident Facts*, 1931, p. 7.

rate for falls in the home has increased 40 per cent since 1925. The decline for burns and scalds may reflect the changes which have undoubtedly taken place in recent years in modernizing and safeguarding heating, kitchen and domestic laundry facilities. In parts of the country where grates and fireplaces were formerly the chief mode of domestic heating, the number of deaths reported annually from such agencies is declining. This indicates the abandonment of primitive heating appliances and the installation of central heating and other safer facilities.

The reduction in illuminating gas fatalities may be the result of the many advances made in recent years by the gas producing and gas appliance industry in safeguarding the use of gas in the home. Boards of health in several communities addressed their attention some years ago to the leaky gas hose and since then, we are informed, effective regulations have been adopted in many cities regarding the sale and use of proper attachments for stoves and other domestic utilities employing gas as a fuel. Gas stoves have been improved in design and, altogether, there has been distinct progress in the safe use of this substance. This work has resulted in large part from the constructive effort of the trade associations in the gas producing and gas appliance industry, whose engineers have been studying for many years the safety aspects of the domestic use of illuminating gas.

**Home-Accident Fatalities, by Age, among Insured Wage Earners.** During the period 1924 to 1928, in this insured group, 21 per cent of the accidental deaths at all ages were due to home hazards, 48 per cent to public hazards and 15 per cent to hazards in gainful employment. Of persons under 15 years of age, home hazards accounted for 29 per cent of the accidental deaths and beyond 15 years of age for 17.5 per cent of the fatal accidents.

**Home-Accident Fatalities, by Sex and Age, among Insured Wage Earners.** For the period of 1924 to 1928, among males at all ages the home-accident fatality rate is 5 per cent higher than for females. The excess of the home-accident death rate for males over that of females is most marked between 25 and 64 years of age. For the age period 25 to 44 years, males have a home-accident death rate 36 per cent in excess of that for females; at the age division 45 to 64 years the excess for males is 45 per cent. For young persons 15 to 24 years of age, however, the home-accident death rate for males is 32 per cent lower than

that for females; and beyond 65 years of age the rate for males is 25 per cent lower than that for females.

While home-accident fatalities are of more frequent occurrence among males, it happens, however, that among all accident fatalities among females at ages of 15 years and over, 36 per cent are home fatalities according to the figures for this period. For all fatal accidents to males 15 years of age and over, only 10 per cent are home fatalities. In other words, home accidents are relatively more important among females although absolutely fewer in number in that sex.

**The Three Principal Means of Fatal Accidental Injury in the Home.** Burning, poisonous gases and falls seem to be the three principal agencies of home injury. Data for the period 1924 to 1929 show that for persons under 15 years of age, home burns cause a death rate of 6.6 per 100,000; above 15 years the death rate is 2.2 per 100,000. Since 1924, there seems to have been a slight downward tendency in the death rate from home burns, both under and over 15 years of age.

Fatalities from poisonous gases in the home seem to occur largely among adults. For persons 15 years of age and over the death rate during this period was 2.9 per 100,000 and among children under 15 years, the rate was only .4 per 100,000. The decline in the death rate for home gas poisonings has occurred wholly among adults.

Fatal falls in the home are concentrated more heavily among adults than among children. For persons 15 years of age and over the death rate for domestic falls was 4.8 per 100,000 and among children under 15 years it was 1.8 per 100,000 over the period 1924 to 1928.

**Details Regarding Burns and Falls in the Home.** For the six-year period 1925 to 1930, facts were also gathered for these policyholders as to the precise agency of home burns and scalds and as to the specific mode of injury in falling.

*1. Detailed Facts on Burns and Scalds in the Home.* The stove and grate hazard accounted, at all ages, for 37.1 per cent of all fatal burns, and hot liquids or steam for 31.1 per cent of these burns. Among children under 15 years of age, 46 per cent of the fatal domestic burns resulted from scalding agencies and 23.5 per cent from stoves and grates. For many years it has been noted that in parts of the South and Southwest of this country, where

grate fires are the conventional mode of heating, a sharp increase in grate-fire deaths occurs during periods of sudden and excessive cold. With the extension of central or of other modern means of domestic heating, these occurrences have become less frequent. There is considerable room for improvement, however, in the mortality figures for grate and stove burns. Matches still account for 9.4 per cent of all fatal domestic burns and for 14.0 per cent of the fatal burns among children.

While all domestic burns show a higher death rate for females, regardless of age, than for males, it happens, however, that for scalds, male children under 15 years of age have the higher death rate (3.5 per 100,000 males under 15 years of age; 2.4 per 100,000 females under that age). For stove and grate burns, female children under 15 years have the highest death rate (2.2 per 100,000). The stove and grate-burn death rate for male children under 15 years was .8 per 100,000. Female children under 15 years of age have a death rate for match burns (1.3 per 100,000) higher than that for males (.5 per 100,000).

2. *Detailed Facts on Accidental Falls in the Home.* Falls on floors, on stairs, and from windows, balconies and porches are the major elements in accidental deaths from falling in the home.

Among children under 15 years of age, falls out of windows, from balconies and porches, out of bed, from chairs, and from fire escapes seem to lead in fatal injuries from falling. For adults, falls on stairs, on floors and from windows are most frequent.

### Nonfatal Injuries in the Home

In 1930, through the courtesy of visiting nursing associations in the United States, there became available the facts on 5,253 nonfatal injuries among policyholders of the Metropolitan Life Insurance Company cared for by these associations. Of these *nonfatal* accidental injuries, only 5.4 per cent arose out of occupational conditions as compared with 14.6 per cent for occupational fatalities in all accidental *deaths*. For *nonfatal* injuries of all kinds, 44.5 per cent arose out of public hazards as compared with 48 per cent of all accidental *deaths*. Again, among *nonfatal* accidental injuries among policyholders, 49.8 per cent were of domestic origin as compared with a domestic origin of 21 per cent of all the accidental *deaths* of policyholders.



**Means of Injury in Nonfatal Home-Accident Cases.**

About 44 per cent of the nonfatal home injuries among these policyholders were due to falls, 27.1 per cent were ascribed to burns, 8.5 per cent to cutting or piercing instruments and 2.6 per cent to domestic machinery.

Among the nonfatal falls in the home the majority were in connection with the use of stairs. The next most important groups of falls were those on floors, from balconies and porches, and over chairs.

The hazard of burns which controlled 27.1 per cent of the total nonfatal home injuries, was made up largely of hot-water and steam scaldings, followed by stove and grate burns and by contacts with hot objects.

**Conclusion**

It is hoped that statistical agencies having contact with the accident problem in its various aspects will inaugurate shortly the necessary procedure for classifying and tabulating facts on the various fields of human activity within which injuries arise. This could be done in the offices of registrars of vital statistics, by nursing associations, in hospitals and in other institutions where accident records are maintained. It is most essential for a thorough understanding of the home accident problem to have at the outset the facts which show where and under what conditions these injuries arise. Facts, when available, may show what can be done to prevent injuries, and by whom. Furthermore, a continuous supply of facts from year to year will tend to show whether any progress is being made to make the home safer. Much remains to be done to equip American homes with safe appliances, to replace rudimentary living facilities with modern and safely acceptable devices for carrying on the work of the home. In some degree, home safety can be furthered by the industries allied with building construction and household equipment. In other ways, householders can be taught the essentials of domestic safety—through local health officers, the press, women's clubs and other existing community service agencies having contact with the home.

## APPENDIX V

(AN APPENDIX TO CHAPTER IV, "HOUSING AND SAFETY")

### LIST OF REFERENCES TO AVAILABLE MATERIAL ON SAFETY

- Publications of the National Safety Council
  - Accident Facts, 1931
  - Safety at Home
  - Transactions of Home Safety Section, 1926-31
- Publications of the U. S. Bureau of Standards
  - C75, Safety for the Household
  - BH-14, Recommended Minimum Requirements for Fire Resistance in Buildings
  - BH-15, Care and Repair of the House
  - H3, National Electrical Safety Code
  - M92, Code for Protection Against Lightning
  - T303, Causes of Some Accidents from Gas Appliances
- Publications of the National Fire Protection Association
  - Suggested Municipal Ordinances for Regulating Fire Hazards
  - The Menace of the Wooden Shingle
  - Code for Protection Against Lightning
  - Specifications for Fire-Resistive Construction
  - Specifications for Private Residences
  - Suggested Model Arson Law
  - Fire-Prevention Week Handbook
  - Syllabus for Public Instruction in Fire Prevention
  - Decreasing the Fire Hazard
  - Dwelling House Inspections
  - Structural Defects, Suggestions for Elimination and Protection
  - Organization Plan for a Fire-Prevention Committee
  - Tests of the Severity of Building Fires
  - Fire Prevention Code for Cities
- Publications of the National Board of Fire Underwriters
  - Safeguarding the Home Against Fire
  - Dwelling Houses
  - Recommended Building Code, 5th edition
  - National Electrical Code
  - Acetylene Equipment for Lighting, Heating and Cooking
  - Compressed Gas Systems for Lighting and Heating
  - Oil Burning Equipments
  - City Gas, Installation, Maintenance and Use of Piping and Fittings
  - Sprinkler Equipments
  - First-Aid Fire Appliances
- Publications of Underwriters' Laboratories, Inc.
  - List of Inspected Fire Protection Appliances
  - List of Inspected Electrical Appliances
  - List of Inspected Gas, Oil and Miscellaneous Appliances
  - List of Appliances Inspected for Accident Hazard
- Publication of American Gas Association
  - Gas Safety Code

## PART II. RECONDITIONING, REMODELING AND MODERNIZING

### CHAPTER VI

## NEED OF HOME IMPROVEMENTS

### Introduction

A home, in the view of this committee, is more than a dwelling in the sense necessarily assigned that word by the Bureau of the Census, which defines it as "a place in which one or more persons sleep." Nevertheless, even a tent, a river barge, a mountain or plantation cottage, a tenement or apartment room, as well as any expensive suburban or rural home, requires at least occasional reconditioning if it is to serve for long as a human habitation.

When a "dwelling," or a house, or any other human habitation is occupied by a family, of which there are, the Bureau of the Census estimates from its 1930 returns, between 29,000,000 and 30,000,000 in the United States, then it comes to have larger meaning, in part because, to quote President Hoover, "the family is the social unit of the nation."

Particularly when a family includes children, do the roofs and walls of any habitation used by it as a home become more than mere shelter. Its safety and its surroundings, its water supplies, plumbing, and heating then mean more than comfort and convenience, since they are factors important to the health and the early impressions of children. Its equipment and setting, its share of sunlight and fresh air, its porches, grounds, gardens, and play facilities then assume added significance.

A home is to be lived in and enjoyed; its primary function, this committee believes, is to provide for the well-being and to facilitate and increase the happiness of a family. And, in part, because each succeeding generation of Americans is confronted with an ever-increasing number of outside diversions, not only does it expect more and demand more from home life but, this committee feels, it deserves more.

If, therefore, home life is to be rich and alluring, it is not enough that houses be periodically reconditioned, as factory buildings are. Nor is it enough that they be equipped with such modern equip-

ment as represents the major advances between the pioneer homes of our forefathers and those that best serve us today. Instead, to safeguard the financial and social investments already made, it is often the part of wisdom, especially during periods of slack employment and when materials are relatively low in cost, to remodel as well as to modernize homes. Home improvement is, as The President has indicated, necessarily "a more or less continuous process, if American standards of living are to be maintained."

Home improvement in the United States is, in other words, progressive. Our standards and ideals, our architectural, aesthetic, and other values are continuously in transition; yet the family remains "the social unit" and in the long run the determining factor of the nation. National well-being is in part indicated by the progress made in the reconditioning, remodeling, and modernization of homes. Normal wear and tear, due only in part to action of the elements, necessitating such repairs as corporations anticipate in their buildings, is inevitable in a home. Neighborhood betterment, increases in property values, and better school, recreational, transportation, and other public facilities depend largely, along with the day-by-day prosperity of nearly all communities, upon construction activities provided by home owners or upon the purchase of materials and the handiwork of the home owner himself.

Reconditioning, remodeling, and modernization of homes are, in all ways, it would seem, both desirable and necessary.

Accordingly, in this report this committee has undertaken to suggest when, why, and how such activities can most advantageously be achieved, not only with a view to making more "dwellings" into homes, but also for the social or community good that, perhaps above all other improvements, such activities represent.

### Essential Facts

This report is intended to give the essential facts that have been gathered during a study of available information pertaining to reconditioning, remodeling, and modernizing. Conclusions are offered regarding desirable standards. Definite suggestions are submitted concerning means whereby home owners may become familiar with the important factors to be considered in connection with the proper upkeep and improvements in the home.

The committee has felt that it would be valuable in stimulating popular interest in reconditioning, remodeling, and modernizing to make a part of this report in the form of a popular narrative. The main report has, therefore, been divided into two parts: First, a brief report to the Conference, including recommendations; and, second, a narrative report in popular style for circulation to home owners. As both parts are submitted to the Conference, the committee has endeavored to avoid unnecessary duplication in Chapters VI and VII.

A home inspection list is contained in the appendix, page 272.

### **Purpose of the Report**

- (a) To foster the interest of the home owner in reconditioning, remodeling, and modernizing.
- (b) To guide the home owner in the proper and economical way to recondition, remodel, and modernize his home.
- (c) To analyze the problems involved in improving the home.
- (d) To find helpful solutions of the problems and state conclusions.

### **Recognition of the Need for a Report**

The President has stated that "adequate housing goes to the very roots of the well-being of the family, and the family is the social unit of the nation."

Secretary Lamont has stated that "upwards of \$500,000,000 a year is being spent currently on household repairs and maintenance."

It is evident to those familiar with the situation that home owners collectively spend vast sums of money, often without securing the best results. It therefore appears essential to the happiness and well-being of the present and prospective home owners that they should be guided in helpful and economical ways to achieve satisfactory results in reconditioning, remodeling, and modernizing the home.

### **Advantages of Reconditioning, Remodeling, and Modernizing**

**Social and Economic Value.** Reconditioning, remodeling, and modernizing the home contribute much toward the family welfare in making possible a desirable, well-kept dwelling. The particular value of such work is as follows:

- (a) Members of the family appreciate a comfortable home no matter how simple a type it represents.

(b) A properly kept-up home helps to lighten routine work and conserve time for other purposes.

(c) A desirable dwelling assists in developing a better family life.

(d) A well-kept modern home in the community tends to influence neighbors to recondition and modernize their homes, when necessary, and thereby assists in upholding community standards.

(e) Proper attention to the home particularly influences the family character. The family owning and cherishing its home instinctively wishes to protect it. Members of the family often devote part of their time to constructive ideas or work in connection with the home and family welfare.

(f) Proper maintenance protects the home owner's investment. By replacing worn parts and by renovating from time to time, depreciation is offset, while remodeling and modernizing prevent obsolescence. Thus the owner finds his property more readily marketable if he desires to dispose of it, and his home will be a better security for a loan if he wishes to borrow on it.

### **Stimulating Employment During Slack Periods**

It has recently been stressed by the United States Chamber of Commerce that possibilities exist in many communities for creating additional opportunities for employment and for stimulating business in certain lines through development of activity in connection with reconditioning, remodeling, and modernizing of homes.

While such work increases employment for workers, it also tends to increase buying power generally, and stimulates sales of materials and services in the construction and allied fields.

### **Who Should Promote Home Improvements?**

Reconditioning, remodeling, and modernizing should be actively promoted by the following groups:

(a) Social, civic and educational groups, to promote better standards of living.

(b) Professional groups.

(c) The financial groups, because it insures the protection of their investments.

(d) The material groups, because it broadens the market for supplies.

(e) The labor groups, because it operates to promote steadier employment.

(f) The publishing groups, because it is a subject of reader interest.

(g) The contracting and real estate group, because it maintains a better housing market.

### **Information for the Home Owner**

In order to determine just what constitutes a desirable, well-kept dwelling the home owner should have a measuring guide or standard to use as a basis of comparison with his present home.

It is obviously difficult to set up housing standards that apply equally to all sections of the country, but certain items should apply generally to most localities.

In considering these standards it is emphasized that they do not include all desirable features, but rather comprise requirements which appear necessary for the family comfort and health and which will come within the budget of the particular family. The following standards might be taken in general as minimum requirements:

### Interior of House

**General Construction Details.** (a) If the house includes a basement, it should be well ventilated and have dry foundation walls and floor.

(b) The house without a basement ought to have a well-ventilated clear area between the ground and first floor, and the first floor ought to be properly insulated.

(c) The general construction should be such that the house will not continue to be seriously affected by shrinkage.

(d) Competent inspection should reveal no undue fire hazards in the construction.

(e) It is essential that the walls and roof be of weather-tight construction, sufficiently insulated to keep the house comfortable in summer or winter.

(f) Windows should be so located as to permit the entrance of adequate sunlight and ventilation.

(g) Doors and windows should fit tightly, but work easily.

(h) The kitchen and service portions should be conveniently arranged.

(i) All available space should be well utilized. A slight rearrangement of the plan may result in desired improvements.

(j) Floors, walls, woodwork, and ceilings should be kept in good condition.

**House Equipment.** (a) The house should contain an economical and efficient heating system with proper provision for furnishing hot water when it is required.

(b) An adequate sanitary plumbing system is part of a satisfactory house equipment.

(c) The electric wiring system should be properly protected; it should provide sufficient outlets to permit well-distributed light and conveniently located appliances.

(d) The house equipment ought to include such labor-saving devices as appear desirable in accordance with the family income.

### Exterior of House

(a) The exterior walls should be of durable materials, kept attractive and in good repair.

(b) The roof and the gutters and down spouts ought to be of durable material and maintained in good condition.

(c) Chimneys should be designed for proper draft, and well constructed. Defects causing a chimney to smoke usually can be corrected, and all chimneys should be kept in good repair.

(d) Tight-fitting, durable screens on windows and doors improve the comfort and convenience of a house.

**Grounds.** (a) Walks and driveways should be conveniently located and well built.

(b) Grounds around the house should permit good surface drainage and be free from dust spots.

(c) Landscape planting suitable to the type of house and the family income is desirable. It should preferably be developed with local nursery stock indigenous to the soil.

### Reconditioning the Home

**Required Study.** A careful study of available material on home maintenance will acquaint the home owner with the problems involved in keeping his house in good condition and in conformity with recommended standards of housing.

**Maintenance Costs.** It is strongly recommended that the home owner should, whenever possible, set aside regularly a definite amount as a budget allowance for maintenance. The budget allowance should be based on past expenditures, or on reasonable estimates based on the experience of other home owners who hold properties of similar construction.

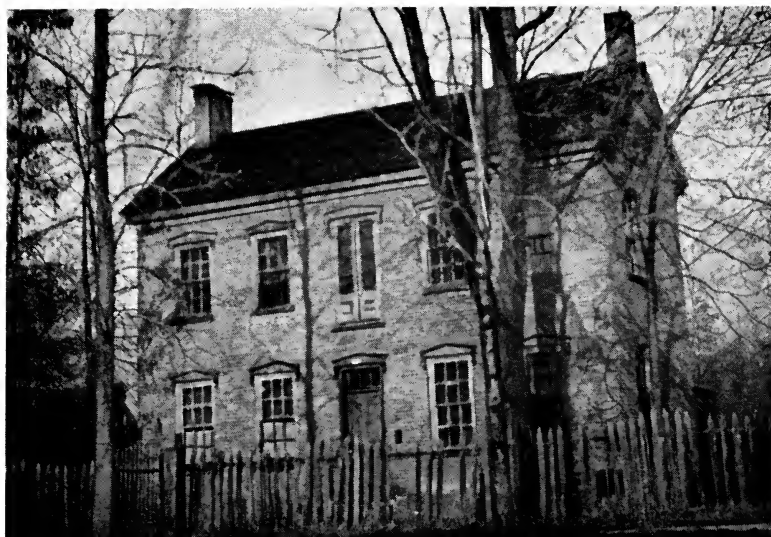
The cost of proper upkeep will, naturally, depend on the type of dwelling, the locality, and whether or not some of the work is done by the owner himself. Another factor is the condition of the home when such a plan is started.

The prudent home owner who undertakes such a budget plan, laying aside a regular sum each week or month as a maintenance reserve, will enjoy the satisfaction of being able to repaint or reshingle or to replace worn-out portions at the proper time and without the necessity of sacrificing other needs in order to accomplish it.

**Repair Items.** Some repair work on the house may be anticipated and advantage taken of the most desirable time to do the work. It is possible to buy materials or secure labor cheaper at certain periods of the year than at others.

Those parts of the house which should receive special periodical attention include the parts of the structure directly in contact with the weather, such as the roof, exposed metal work, and exterior walls, including exterior doors and windows. When these vulner-





*Courtesy of Better Homes in America*

To make a demonstration of the reconditioning of an old house the Better Homes Committee in Provo, Utah, in 1929 selected this colonial house which had fallen into disrepair.



*Courtesy of Better Homes in America*

The changes made in the house shown above were not radical but were in good taste and the improvement is marked.



*Courtesy of Better Homes in America*

Even the humblest of rural homes may sometimes be reconditioned to advantage. This shack was selected by the Better Homes Committee of Pulaski County, Arkansas, for improvement in the Better Homes Campaign.



*Courtesy of Better Homes in America*

By the expenditure of very little money and a good deal of well directed community effort, the shack shown in the preceding picture was made over into this modest but charming rural cottage.

able parts of the house require attention, repairs should be made at once.

Repair work in the interior of the house is generally not so serious as to require immediate attention, but certain signs may be noted which warn the home owner of defects.

Serious plaster cracks, stained or wet spots, defective steps or landings, floors which are not firm, or evidence of settling or sagging in any part of the house are all warnings which should be heeded at the first opportunity.

**Suggestions on Inspections and Repairs.** Fall is a good time to look over the exterior of the house, including windows and doors, roofs, foundations, sidewalks, and drains, to be assured that serious trouble will not occur during the following winter. Temporary repair work may be necessary, which may be properly taken care of during mild weather.

Spring affords a good opportunity to inspect the cellar, including the heating plant, and schedule any needed work. Inside decorating is usually desirable at this time. The grounds should also be looked over, and proper disposal made of any trash or pools where mosquitoes are liable to breed. Landscape planting work is desirable at this time.

The early summer season is generally a desirable time to do exterior painting or to make more extensive repairs and alterations. If work is required on the exterior of the foundation, the earth is in the best condition for any necessary digging. All outside work that may be affected by weather conditions can advantageously be undertaken at this period.

Late summer or early fall is the best time to renew floors, do any caulking or weatherstripping and, in particular, attend to any repairs affecting the family comfort in the coming cold weather, such as needed reconditioning to the heating plant, fireplaces, chimneys, and broken or ill-fitting windows and doors. A careful check could also be made in the early fall toward eliminating any fire hazards, which, if neglected, would be aggravated during the heating period.

**Workmanship.** Many of the needed repair items require the services of a skilled workman to do a satisfactory repair job, and it is a good policy to deal with a responsible local firm or workman, recommended through a reliable source. It is usually most satisfactory to all concerned, even on relatively small jobs, to have the

details of the repair work, including financial arrangements, total cost, kinds of materials, nature of labor, and guarantee of workmanship and materials, clearly stated in writing and properly signed.

### Modernizing the Home

**Appraising the Home.** In order to assure that the home owner will make a wise decision in connection with improving his home, the committee recommends that he make a careful personal check of his property. This home inventory should enable him to determine the extent of work to be done and the expenditure involved. It will make it easier to determine what items should be given first consideration. A study of a standard handbook on care of the house and careful use of an appraisal chart should furnish the home owner with material assistance in making a thorough inspection of the home.

**Modernizing Retards Depreciation.** After a careful study of available data the committee wishes to stress the fact that a great number of the homes over the country could be substantially improved by constructive modernizing and often by changes involving minor expense. It is also noted that delay in making needed improvements frequently results in home owners suffering much more than is necessary from depreciation of their property.

Obsolescence of certain items in the home represents one factor which may often prove to be a principal cause of depreciation.

A careful check of the house may not show any serious defects of construction or equipment, and yet certain items that have become obsolete in comparison with newly built houses may materially affect the comfort and sales value of the property.

**Depreciation.** Depreciation of a house may result from the physical wearing out of materials in the house structure. Obsolescence, however, may chiefly result from more indirect factors affecting the property. A particular house may be undesirable, from the family standpoint, while it is still structurally sound. Both physical depreciation of materials and obsolescence of certain features are important factors in determining the value of the property, but defects can be overcome to some extent by reconditioning, remodeling, and modernizing.

**Rate of Depreciation.** Although arbitrary figures are available from various sources, it is difficult to establish a rate of depreciation which fairly applies to all sections of the country. In some sections, certain parts of the house deteriorate more rapidly than they would in the same type of house in other sections. For example, paint on the exterior of the house may last a short time in certain sections of the country, such as coast areas. Plastered surfaces in a house may show defects more quickly in damp areas than they would in other localities. However, extreme dryness may cause just as much trouble as excessive dampness to a house structure.

**Obsolescence.** A home may be considered obsolete because it is not in fashion. This defect can be remedied in some houses by reconditioning, remodeling, and renovating.

Popular styles change in clothing, motor cars, etc., from time to time. In somewhat the same manner, though to a much lesser degree, styles in houses also change. It is nearly always possible to modernize a house to bring it up to date. Careful thought, however, should be given to any improvements in order to make certain they are utilitarian rather than merely popular fads.

The home owner should feel certain that the modernizing plans under consideration will represent a wise expenditure and that the improvements would result in real home benefits. He should carefully weigh the following factors in order to ascertain whether or not community conditions will warrant the expenditure contemplated:

- (a) Health. Does the community include a good health department?
- (b) Neighborhood. Is the neighborhood deteriorating or improving?
- (c) Schools. Are there good schools in the neighborhood?
- (d) Churches. Are there religious facilities in the community?
- (e) Recreation. Are there parks and playgrounds available?
- (f) Land values. Are values going up or down?
- (g) Insurance rates. Are the insurance rates satisfactory?
- (h) Restrictions. Are there proper zoning laws?

**Home Improvement Contracts.** The home owner is also faced with the problem of the most desirable form of contract for home improvements. While local conditions materially affect the type of contract, it is generally conceded that competitive bidding best assures the home owner a fair cost. In all cases, however, the home owner should consider the reputation of the builder or work-

man, which generally can easily be checked up through various local sources, such as responsible references.

**Estimated Cost.** The home owner should know the approximate cost of any intended improvements before proceeding, and should allow at least 10 per cent above such estimated costs for contingencies. When the probable cost of the improvements contemplated is learned the home owner should decide what particular modernizing items he is financially able to carry out immediately and what item should preferably be postponed.

**Reducing Fire Hazards.** The home owner should carefully consider how modernizing work may reduce fire hazards. When particular work is under consideration, it is desirable that any new construction or changes in construction details should, whenever possible, include the use of fire-resistant materials. The fact that the heating plant, fuel, etc., are contained in the basement makes it particularly desirable that the basement should be given careful consideration from the fire-prevention standpoint.

**Financing.** When careful consideration of the various factors involved assures the home owner that his proposed improvement plans are desirable, it is frequently necessary to secure proper financing. Oftentimes, such financing as the owner may need can be secured through a new or larger mortgage from a local financial institution, such as a building and loan association, savings bank, insurance company, building material company, or credit bureau. These institutions will, at the same time, furnish advice on the wisdom of the project and indicate whether or not the expenditure involved will add commensurate value to the property. In most cases, they likewise afford a certain degree of control of the quality of the work or materials to be furnished.

Where such financing cannot be arranged, it will be frequently found that credit will be furnished by the contractor or seller of the equipment. In such cases, however, the home owner should guard against excessive interest charges and carrying costs.

### Recommendations

1. This committee recommends that a permanent, well-endowed and disinterested organization be established, or that some existing organization be qualified to fully carry out the findings and recommendations of the Conference. Until this can be done it recommends that an advisory committee be appointed to cooperate with the Division of Building and Housing of the Department of Commerce to make the findings of the Committee on Recon-

ditioning, Remodeling, and Modernizing available and helpful to public and private agencies, to the individual home owner, and to home builders throughout the country.

2. This committee recommends the immediate emergency organization of community groups and individual effort in every city and town, and, where feasible, in every village and county in the United States, to relieve unemployment by stimulation of reconditioning, remodeling, and modernizing.

It urges that initiative be taken at once by local agencies of the President's Organization on Unemployment Relief, with which, wherever possible, all effort should be related by local chambers of commerce, newspapers, Better Homes in America, women's clubs, or other established units in community life, and that all other organizations and public spirited individuals cooperate.

It urges that there be, as experience indicates is desirable, one, and only one, such central organization or clearing-house, and that all matters of policy be established by an organized emergency board or steering committee selected by or, in any case, representative of the groups concerned. Where practicable, such a steering committee may well be representative of local architects, women's clubs, town improvement associations, agencies of Better Homes in America and all other civic and service groups, of newspapers, school and health officials, chambers of commerce, utilities, banks and building and loan associations, major employers, builders, construction and allied trades, local real estate dealers, merchants and material dealers.

The immediate purpose of an emergency organization or clearing-house may be stated as the stimulation and guidance of home reconditioning, remodeling, and modernizing, with a view to home and neighborhood betterment, and revival of activity in the construction trades and industries, providing all employment possible to men of all occupations who are out of work.

3. This committee recommends that a prime function and purpose of a national central organization be the assembling, study, analysis, interpretation, and publication in helpful terms, of all available material on home reconditioning, remodeling, and modernizing. It urges that special study be given to collecting, publishing, and disseminating authoritative information on depreciation and obsolescence.

4. This committee recommends that since general and desirable home improvements, such as reconditioning, remodeling, and modernizing, depend upon universal appreciation of architecture, building, and social or community standards, full dissemination of information or findings should be made available to all educational, professional, and civic agencies as well as to home owners.

5. This committee recommends the preparation of a practical authoritative handbook on how to recondition, remodel, and modernize. It urges that it be complete in all aspects of the problem, and be written in popular style. It urges that it be carefully organized so that it may be applicable to all homes and suitable for use in classrooms.

## CHAPTER VII

### SUGGESTIONS TO HOUSEHOLDERS ON HOME IMPROVEMENTS

#### Reconditioning Is Periodically Necessary

Reconditioning of homes is at all times a periodic necessity if the full value and service of a home are to be enjoyed, partly for the reason that buildings of nearly all kinds may be said to begin a struggle against destruction by the elements the moment they are put together.

For example: Wood is part of an organism that was alive. It is, therefore, subject to deterioration and decay, which in large measure are preventable by the use of paint and wood preservatives. In some parts of the United States, wood is also subject to attack by termites and other insects, such as post-borers, which can wreck entire houses if not checked, but they usually can be checked; and protection against destruction by rodents can be practically assured by following instructions set forth in various bulletins of the United States Department of Agriculture and state agencies. Also certain kinds of metal, notably ferrous or iron metals, are subject to corrosion, a form of burning up with no flame in sight. Corrosion costs the American people, it is estimated by authorities, approximately three billion dollars a year, the equivalent of a tax of approximately \$25 on every man, woman, and child in the United States; yet it is in large measure preventable by the use of special paints and other coatings or by the choice of metals, in many cases new in kind, that are highly rust-resistant.

Within natural limitations, it may in fact be said that there is no limit to the life of a dwelling whose perishable parts are periodically reconditioned. Thus, although the average life of an unpainted, thatched log hut in a Russian village is estimated at only approximately ten years, partly because of the ravages of fire, there are many colonial frame houses in the United States that are more than 150 years old, and not a few that are more than two centuries old, which are not only giving satisfactory service but,



because of their age in many cases, have a much higher market value than other houses in the selfsame neighborhoods. Moreover, in France there are not a few stone houses in which succeeding generations of a single family have lived for nearly a thousand years.

Periodic reconditioning of any home is necessary to protect the investment already made in it and the loan value and savings it represents. When neglected, deterioration of any structure is rapid and progressive; it is contagious or "catching," and therefore will draw compound interest. Moreover, "the melancholy prophecy of decay" in a home rapidly discounts its value and desirability.

Periodic reconditioning is necessary to the safety, health, and comfort of a family.

Also it is universally recognized as an obligation due from any property owner to his family, his neighbors, neighborhood, and community.

### Fundamentals

**Prepurchase Inspection.** A typical prospective buyer, buying or renting a house, usually gives careful thought to its outside appearance, setting, external condition, and the provisions made within for comfort and convenience.

When an experienced architect or builder or appraiser examines a house, one of his first concerns is for its fundamentals or vital parts.

Thus he is likely to enter the basement and go all over the house to make sure that the foundations and walls are sound. If the house is new, he expects some settling and, therefore, perhaps some cracks in walls and ceilings. If, however, the house has stood for some time, he looks with concern upon continued signs of settling, such as serious cracks in the plaster of walls and ceilings, irregularities or weaknesses in floors, stairs, and landings, and distorted door and window sills or frames, making it impossible or difficult to open and close doors and windows. Also he looks upon stains or wet spots in walls and ceilings as probable indications of defects in roofs, flashings, gutters, and down spouts, in chimneys, or plumbing. Likewise, in the attic as well as the basement, he examines all timbers for signs of dry-rot, deterioration from moisture and, in some parts of the country, for damage by post-borers, termites, and other insects. Then, too, he seeks

out, in all parts of the house, signs of sagging, dislocation of beams, shrinkage of poorly seasoned timbers, and other signs of deterioration or neglect, any one of which may require the services of well-directed and experienced workmen.

Other vulnerable places in any dwelling are those exposed directly to the weather, notably outside porches and steps, and exposed metal work, such as flashing, gutters and down spouts, and exterior walls.

Also, any experienced judge of property condition, and therefore of value, looks to the plan and condition of all pipe lines, plumbing, and heating appointments, maintenance of which ordinarily represents much of the cost of keeping a house in good repair.

Likewise, a home owner may well make periodic examination of the physical condition of all parts of his home and its equipment.

Major weaknesses in a house usually require immediate emergency repairs. In all instances they need to be corrected if one's investment, savings, and the safety, health, and comfort of occupants are to be protected, since deterioration is liable to be progressive and may, in the long run, impose heavy penalties on the home owner. It is urged, therefore, that experienced guidance and help be obtained, even when only temporary remedies are practicable, particularly since such repairs can, for the most part, be made during seasons when building trades are least busy. In many instances, however, repairs can be made by a householder competent to use ordinary tools. To assist him are numerous household manuals,<sup>1</sup> at least one of which is likely to be found in any library, as well as agricultural and home magazines.

**Painting.** Judicious use of paints, shellacs, varnishes, lacquers, and enamels usually provides the quickest and most economical means to rehabilitate both the exterior and interior of a house, its woodwork, walls, ceilings, floors, and even its furniture.

Such surface coverings are not only essential aids to decoration but are protective agents for wood and the only practical preventives of rust where metals of some kinds are exposed.

Paints were originated in ancient times, and for centuries have been used, in large part, to fulfill man's instinctive desire to decorate his abode. Of old, paints were few in kind and color and rela-

---

<sup>1</sup> Phelan, Vincent B., *The Care and Repair of the House*, Garden City, N. Y., Doubleday, Doran and Company, Inc.; Washington, U. S. Government Printing Office, 1931.

tively difficult to use. Then "flat" or nonglaring interior wall surfaces were difficult to obtain and shellac, quick-drying lacquers and other coverings were not available. But today, thanks largely to our industrial laboratories, special products that require no further mixing are available for every use. Moreover, in this material field, adequate guidance is readily available. In fact, the use of paints and allied materials has become, at least for small jobs, a more or less congenial family activity, although larger jobs, such as house painting, require much labor and no little experience and skill.

Few tools are required except well-cared-for brushes and, on occasion, sandpaper for use on wood, emery paper for use on metal, finishing, scraping or polishing tools or devices available at any paint or hardware store, where, also, time payments for materials in quantities are in some cases provided by large paint manufacturers.

With instructions provided and followed, house exteriors can readily be both improved and preserved by the redecoration of exterior walls, trim, porches, and fences, or such items as window boxes, shutters, screens, garden and playyard furniture, while the life of galvanized gutters and down spouts can be prolonged by the use of such special preservatives as red lead or basic chromate pigments, and other parts or items made of either metal or wood can be coated with aluminum paint or with bronze powder dissolved in carriers such as varnish.

As everyone knows, a fresh and almost new appearance can be given the interior of a house by the generous use of paints and allied materials, and any room can be quickly renovated. Ceilings can be refinished or, after priming, painted by an experienced painter; and side walls can be either repapered or stripped of paper, filled, and primed, or perhaps covered with cotton sheeting glued on to conceal imperfections, and painted. It may be that the house owner himself can redecorate the woodwork, floors, and even the furniture.

With a few precautions, such as thorough mixing of prepared paints, the use of clean, well-conditioned brushes, priming of new wood, and covering over of knots with shellac to prevent their reappearance, woodwork at least can usually be refinished with paint or enamel by the house owner himself or some member of his family.

Also, "natural" floors in relatively poor condition can be cleaned, varnished, shellacked, stained, or painted. In many cases paint and small irregularities can be satisfactorily removed by mechanical grinding or scraping and the floors can then be resurfaced and refinished with either shellac or varnish preparatory to waxing; or perhaps they can best be given two or more coats of special deck or floor paint and, after the first coat, any cracks can be filled with putty or other crack filler, or, if cracks are large, with shims, or thin strips of wood. It is to be noted, however, that in many cases the part of wisdom is to use linoleum or other compositions, available in many attractive designs, or new wood flooring (of surprisingly low cost) of either narrow or random width boards, such as may be appropriate in certain houses.

Likewise, home owners or other family members in many cases can use leisure hours to decorate unpainted furniture purchased at a low initial cost, or to redecorate old furniture. Old finishes may be taken off with paint remover, scrapers, and sandpaper. Bedsteads, tables, chairs, and other household furniture can thus be made more attractive. Many an attic or other storeroom contains old pieces whose design, workmanship, and value as heirlooms or antiques warrant repair and refinishing. Some of them are of fine woods and are made beautiful by cleaning and resurfacing with oils.

Bathrooms and kitchens especially deserve periodic redecoration. If paints are not practical for use on basement walls that are extremely rough, whitewash and other special preparations are advantageous.

### Home Remodeling and Modernizing Are Often Wise

Remodeling and modernizing are problems for every home owner who is concerned with *increasing* the worth and desirability of his property as well as its safety, healthfulness, comfort, and conveniences.

Admittedly, large investments in remodeling and modernizing of homes may not always be a wise procedure. It may be, to illustrate, that a house has for so long been without reconditioning that its ceilings, walls, floors, and perhaps even its foundations, timbers, and other vital parts are beyond repair. It may be that a house is of such construction or design that its remodeling is uneconomic and architecturally or structurally impracticable. Also

there are instances on record of houses that have been remodeled and modernized inadvisedly, where, for example, they were located directly in the path of new state highways soon to be built, where construction or other activities were soon to change the beauty of surrounding topography, or where, perhaps for want of adequate zoning regulations, factories were soon to be built, or dwellings, serviceable only as homes for factory workers, were soon to lose their value because of the removal of factories.

On the other hand, in many instances, home owners are justified, particularly if construction costs are low, in extensively improving their houses by way of making them available for sale at a profit or to increase their value in meeting individual and group family needs. For instance, it may be that the opening of new bridges or highways, the completion of new means of transportation to busy centers, or other new and strategic factors, justify the home owner even in borrowing money on advantageous terms, in order to remodel extensively or modernize his premises.

It is evident from extensive studies that the great bulk of home remodeling and modernization projects undertaken in any year arise from the desire of the home owner to increase the direct comforts and satisfactions of himself and his family. It is also evident that the great majority of American homes could be materially improved by constructive remodeling and modernization, often at small expense, and in many cases by the handiwork of the home owner himself or other members of his family, with no direct outlay save for materials. Also, it is established that in thousands of homes equipment has lagged behind other conveniences. Thus a survey described in the May, 1931, issue of *The National Geographic Magazine* revealed that among nearly a quarter million of relatively prosperous farm homes in Illinois, 86 per cent had an automobile, 12 per cent had a truck in addition, 22 per cent had electricity or gas, yet only 57 per cent had a sink or a pump in the kitchen for the relief of the housewife.

A house may be structurally sound and may need little more than repainting to restore its standing in the community. On the other hand, it may not manifest signs of deterioration, yet it may look badly in its neighborhood because the homes surrounding it are new or of such a type that only carefully planned improvements, perhaps of small cost, will restore its appearance. It may be that the main value of a house is its architectural distinction and

that improvements skilfully planned will profitably set it apart from all others.

In any case, since each home must be looked upon as an individual problem, home owners are urged to make a survey and to render, at least to themselves, a written accounting of all the telltale factors in point before working out their plans and putting them into practice. A survey should cover such questions as the following:

Are the plans I have made justified? Is the community one in which it is best for us to continue to live? Has it a good health department and a low mortality rate? Does it provide certified and adequate milk and water supplies, and other general needs? Are the schools and the churches adequate? Is the neighborhood satisfactory? Does it provide convenient marketing facilities, and are other shopping facilities abundant? Does it provide adequate recreational facilities, playgrounds, parks, amusements? Has land value gone up or gone down over a period of years, and what is its probable future? Are zoning regulations in effect? Is property adequately restricted in contiguous areas? Are telephone, light, and gas lines available?

Then, too, it is urged in all cases where the property in point is used by the home owner and his family, that due consideration be given to the likes and dislikes, special educational requirements or aspirations, and the probable disposition of one's family. Also, it is important in all cases to take into consideration all factors looking to family happiness and sociability, entertaining, relaxation, space for each family member to be alone when privacy is desired, in which to do school homework, study, or to care for one's own possessions. Also, it may be that a house is unsuitable or lacks appeal to a housewife; perhaps because it affords insufficient space for a growing family, too little room for the care and supervision of young children, or because the neighborhood is undesirable. On the other hand, it may be that the desirability of a given house for a particular family is to be determined by the question of whether or not grown children are likely soon to go away to school or college, are to seek employment elsewhere, or are soon to be married.

It is established that in some cases investments especially made to qualify a house for a given family are in the end lost. It is also established that in many more instances delay in making home improvements not only results in costly deterioration of a house but, perhaps, through long periods of time, prevents those who live in it from enjoying such family comforts as might have been readily available, and which adequate housing alone can provide.

**Appraisal Preliminary to Large Improvements.** To assist home owners in working out satisfactory plans for remodeling and modernizing as well as reconditioning their properties and to assist them in avoiding improvements of doubtful value, it is urged that study be given to some of the books and government and other pamphlets on the subject that are available.<sup>2</sup> It is also suggested that where extensive alterations or additions are contemplated, possibly with a view to resale, expert advice be sought, perhaps through a central community clearing-house, from a banker, a representative of a building and loan association, or some other experienced appraiser of property values; that an experienced architect and established builder be asked for advice; that in any case well-informed friends or neighbors be called upon to give their suggestions; that all estimates of work contemplated be set down in writing; and that at least 10 per cent in addition to the contract price for improvements be provided to take care of contingencies or changes in plan.

Such appraisals and conferences may well have to do not only with the various considerations mentioned but with others, such as the nature of the lot and the location of the house in its relation to streets, traffic, transportation, and natural advantages, including shade trees, exposure to sunlight or prevailing winds, waterways, beaches, or parks. Also the type and construction of the house itself deserve study, along with the desirable order and nature of contemplated improvements. For example: Houses were built a half century or more ago in accordance with distinctive lines and interior arrangements which set them apart as old and true to colonial types, and perhaps the owner will wish to preserve or to restore these lines and arrangements even to the details of floors, painting, hardware, and furniture. Likewise, reproductions of colonial homes warrant treatment as such. But, on the other hand, other houses, perhaps relatively old, may possibly best be remodeled, with a view to improving or revising their lines. Also, as much as a family may desire the building of a fireplace for sociability's sake and for use between warm and cold seasons, it may be that the installation of a new heating unit, of perhaps less cost, should have priority, or that, instead of a new porch, say, a bathroom or an additional bathroom, or lavatory, or new plumbing

---

<sup>2</sup>A list of some of the publications is available from the Division of Building and Housing, Bureau of Standards, U. S. Department of Commerce.

fixtures in an existing bath should be first installed, or that provision should be made for an additional bedroom, perhaps in the attic, or for a modern kitchen—always an important factor in the desirability, rentability, or sale of a home.

**Financing.** For many home owners reconditioning, remodeling, and modernizing projects are practicable without special financing. Such improvements are especially advantageous in the investment sense if they can be made when material costs are low and workmen are available. Home owners with funds can in many instances look upon home improvements as perhaps the safest and most constructive of all investments. Moreover, in many cases, unusual discounts can then be obtained for cash.

In many cases the credit of a home owner or family is established, or can easily be established, with local or other dealers in materials and at least some of the labor entailed can be done by a family itself.

Credit is also frequently extended to home owners by material industries. For example, paints, oil burners, and other heating units, refrigerators, and many other items can be bought on the deferred payment plan as readily as automobiles, and sometimes on even easier terms.

In addition, there are other plans by which a home owner can obtain credit or, better still, cash, which alone can be exchanged for all commodities and all services.

In some cases direct loans can be obtained from funds provided for home betterment by employers or trade groups. In other cases the giving of a personal note of long duration may be justified, and there are cases where extreme conditions warrant the borrowing of small amounts from personal loan organizations legalized in many states.

In general, resort is best had to local banks and building and loan associations. A home owner may be advised that it is entirely practicable and oftentimes wise to place a first mortgage, or to increase the amount of an existing first mortgage, to make needed home improvements, since it is, in general, established that a family which resigns itself to inadequate housing facilities and to make-shifts, limits its enjoyment of home life.

If banks and loan associations are unable or unwilling to finance a home owner, he may resort to large builders in some states or to some mail-order houses that, in order to facilitate the sale of their



materials, will accept the mortgage or the notes of a home owner and, through their own or other acceptance channels, facilitate the making of a contract. It is to be noted, however, that such organizations prefer financing, at least in considerable amounts, to be done through banks and building and loan associations, and that they advise applicants for credit to go first to these agencies.

But some precautions are urged:

It is urged that no step toward borrowing money be taken until adequate study has been made of one or more of the many available books and government pamphlets that discuss the subject of home building, and that in all cases loans be made and, so far as practicable, materials be purchased from local agencies that are established and known to be dependable, and that strict scrutiny of all deliveries and accounts in all cases be made.

It is not deemed advisable for a home owner to extend or to increase mortgages or other indebtedness to make major home alterations unless he has made sure, in the light of technical and expert advice and appraisal, that the resale value of his home or other important considerations justify the investment.

It is suggested that before undertaking any large increase in total and current indebtedness, each family should organize its income and expenditures on a strict budget basis to make sure that large home alterations will not in the end be an undue burden.

**Improvement of House Groups.** In many large American cities, whole residential neighborhoods in blighted areas have been reclaimed. In many cases it was found that slum areas in the lowest-rent class were made up of well-built old houses of good general design. Complete reconditioning and modernizing of such houses and settings to appeal to the tastes of groups of a higher economic level have in many cases then resulted in increase of rentals of several hundred per cent, with consequent increase of value. Thus, in Boston, notably on Beacon Hill, in Chicago near the North Shore, and in New York, in Greenwich Village, Murray Hill, and other districts, large areas have been successfully reconditioned and modernized.

Such large, group, city enterprises have usually been carried through by one or more individual companies or by cooperative effort. In some cases, in suburbs, individual owners of blocks or groups of houses have accomplished the same desirable results.

In some city and suburban areas there are scores, hundreds or

even thousands of houses (in suburbs usually "detached" houses) built on one simple and uniform plan with a porch across the front that cuts off light from the living room, and with kitchen and dining room in the rear. Traffic usually destroys all privacy on the porches of such houses, yet the rear yard is often unused, except as a place for deliveries, ash cans, and the drying of clothes and, in appearance, is part of a common yard belonging to the families of a whole block. The result is that, even if such groups of houses are in neighborhoods intrinsically good, the lack of beauty, comfort, sunlight, privacy, and the condition of the gardens in such areas often condemn the houses to use by low-rental classes and to steady deterioration in value as compared with blocks and neighborhoods progressively improved.

Successful reclamation of such areas by remodeling an entire block at one time has in many cases been assured by providing distinctive features that are desirable and are not to be found in other like groups or areas.

Such an outstanding feature may be privacy of home and garden achieved by careful planning, complete remodeling, or by the simplest changes in floor plans before new plumbing is installed and refinishing is begun. Thus, the living room may be changed to the rear, the kitchen and dining room may be moved to the front, and the porch be eliminated to admit more sunlight. Then a kitchen entrance may be made at the side of the house and, perhaps, an attached or basement garage provided, screened with shrubs or hedges, with a separate drive to the street. A simple entrance at the center front, with carefully planned window groups and flower boxes at each side, may be used to beautify the street view of the house. The hall may be planned to lead directly to the living room, between the kitchen and dining room, with a stairway to the upper hall.

Such houses are so planned that deliveries can be made at the front, where concealed garbage and ash receivers are placed, and this plan leaves the rear yard to be enclosed with walls or trellises, on which vines can be trained, so that the garden is private and accessible only to the family. Or the rear yard can, if desired, be converted into an "outdoor living room." (See page 255.)

The owner or company that can arrange to improve the backyards and to screen them, to seed them with grass, and leave to the tenants the cultivation of flowers and shrubs, can honestly

advertise his houses as garden cottages, and usually is able to find exceptional demand for them at higher rent, by a higher-rental class.

### Standards and Ideals

Since the dwellings in the United States, approximately 29,000,000 in number, include the widest possible range of structures, many of which are at best only temporary abodes, obviously few, if any, specific rules likely to be universally practicable can be set down. It may be, to illustrate, that a house represents the investment of large sums of money and that it is maintained by a few, or many, employees of the owner. On the other hand, it may be that the home is, as the bulk of American homes are, of medium cost, and that the owner and occupant personally, or with occasional local help, attends to all problems concerned with its maintenance. It may be an old home, perhaps a colonial home, built to endure for centuries, deserving skilled architectural planning in alteration that is warranted on the theory that many old homes can be purchased advantageously, and renovation, if undertaken skilfully, is much cheaper than building. It may be a rural home, a city home, or a suburban home. Each has its special problems, advantages, and individual possibilities. Or it may belong to a family of large income, of small income, or, indeed, of little or no income, although such a family may be able to get credit at local stores or be able to buy on the instalment plan materials that members of the family, especially if unemployed, can use to good effect.

In nearly every case, therefore, each home is a separate, individual problem, as is virtually every room and detail of equipment in it.

Thus, as already indicated, there are houses which, because of their location, structure or condition, cannot profitably be reconditioned, remodeled, or modernized, although the purchase of portable equipment for them may, in the long run, be advantageous. And it is also established that frequently "piecemeal" or "spot" alterations, perhaps in themselves well made, are hurriedly undertaken, without due regard for the requirements of a family, or without due regard for the house, garden, or other considerations viewed as a whole, to the subsequent regret of the home owner, and perhaps of his neighbors, too.

Accordingly, the only approach to home improvement likely to be widely helpful must begin, and end, with standards and ideals

as guides and as goals toward which to work. Therefore, as a major "check," to give interest and purpose and plan to home owner endeavors, various standards and ideals are herein indicated, even though they may not be immediately attainable, as likely to be helpful to home owners and housewives as guides and goals useful in planning over a long period of years.

Such standards and ideals are safety, health, sunny rooms and porches, ample grounds and recreational facilities for children.

### Safety

**Fire.** In reconditioning, remodeling, and modernizing any house or other structure, it is urged that due regard be given to the hazards of fire and to careful planning for its prevention. It is to be remembered that fire annually costs the people of the United States thousands of lives and, with its prevention, approximately a billion dollars.

It is a saying among firemen that few home owners display adequate concern for fire hazards until they and their families have experienced a fire. It is pointed out that fire annually destroys the life earnings of thousands of American families and reduces many to pauperism. It is added that special attention needs to be given to fire hazards in villages and rural areas, where fire departments are not available, where strict construction requirements are not in force, and where a fire, once started, cannot be stopped or be controlled, and causes the heaviest loss of life among children.

Among the primary causes of fires, particularly in village and rural homes, and wholly apart from such tokens of careless house-keeping as greasy walls and floors in kitchens, are flimsy roofs of highly inflammable material, neglected, warped, cracked or poorly constructed chimneys, and inadequate planning and insulation of pipes, flues, and heating and cooking devices. In all of these instances the hazards can be reduced, promptly and at little expenditure for materials and labor, by the intelligent use of building materials. However, it is to be emphasized that the use of materials, howsoever intelligent, may be of little or no avail if other precautions, notably those pertaining to house plans, are not taken. Such plans, authorities say, should look to providing ample protection between combustibles and heating or cooking units, correct placing of doors and lanes of traffic between various parts of the house, the sealing up of hollow spaces, and other provisions looking

not only to the prevention of fires but to their control when once started. It is incidentally noted that special precautions need to be taken wherever photographic film of any kind is stored in quantities.

Another common and increasing cause of fires is the careless use and storing of inflammable liquids, notably gasoline. It is stated by fire-insurance and other authorities that in no case should gasoline ever be stored, even in small amounts, or be used for cleaning purposes, in any house or barn; that it should not be stored in a garage but, instead, underground or in separate structures especially made for it, and that, wherever possible, noninflammable substances be substituted for it in cleaning. It is pointed out that many fires are started, notably in barns or other buildings littered with hay or other inflammable material, by the exhaust from gasoline motors. Also it is pointed out that gas often accumulates in pits or other places under cars, or where gasoline is used for cleaning; that it may then be exploded by pilot lights used in gas stoves, by sparks thrown from tools, by the careless disposal of matches or cigarettes, or even by contact of shoe nails on a cement floor. Many gasoline fires are started also, as the records show, by spreading of gas accumulations, from a built-in garage for instance, through thin walls, through foundations or even rat holes to furnace rooms, since gas accumulations are prone to seek the lowest levels. For these reasons it is urged that careful periodic examination of garages be made; that any hazards be promptly corrected; and that fire extinguishers, or at least pails of sand, be generously provided wherever gasoline is stored or used, since water is of no avail in putting out a gasoline fire.

Spontaneous combustion, beginning with smouldering and resulting in a violent explosion, is another common cause of fire wherever quantities of dust, under certain conditions, are allowed to accumulate or where oily rags and debris of various kinds are permitted to gather.

Home owners in general are urged, particularly when reconditioning, remodeling, or modernizing their premises, to consider every possibility for reducing fire hazards, on the theory that houses can in large measure be safe from fire. Thus it is urged that full attention be given to proper fire stopping between studs to prevent passage of flame or heated gases through walls and partitions, protection around sills and pipe openings, the use of

fire-resistant lath and plaster at vulnerable points, and the proper installation of lighting and heating equipment. Also it is urged that attached garages be safely insulated from houses, and that chimneys be well built and properly flue-lined and insulated from all combustible construction.

The fact that usually a heating plant, firewood, oil, and other fuel are contained in the basement of a house makes it desirable that it, particularly, should receive careful attention. Thus, not only fire-stops, but fire-resistant materials between double flooring, and protection of framing members around a furnace or heater and around its flue, materially assist in controlling the spread of flames. It is recommended that all ash containers be made of metal and that they be kept clear of all contact with firewood or wood floors. It is also suggested that a fire extinguisher and the lawn hose, connected and ready for immediate use, be available in every basement. And to these recommendations fire experts add that all cellars containing a heating unit, and all attics, if practicable, be provided with sprinkler systems attached to city or tank water systems, and that large skylights or other outside openings, automatically sprung open by the melting of fusible links, be provided for basements, attics, and possibly stairs, so that, instead of gathering force and "mushrooming," flames will be released to the out-of-doors.

Experienced firemen urge the use of metal-lined cellar doors, opening onto the floor above, and adequate exits, preferably stairways that are enclosed, for top floors. Firemen also urge continuous school and adult education to reduce fire losses which, in the United States, cost \$900 a minute, an equal additional sum for fire protection, and dire loss of life. Such losses are often preventable through realization, for instance, of the fact that when a house is on fire one should never open a door, possibly to inhale devastating smoke and flame, without first putting a hand on it to ascertain whether or not it is hot.

Rural and urban home owners and emergency and other community organizations, including public schools, are accordingly urged to have available *Fire Protection Construction on the Farm*, F. B. No. 1590 of the United States Department of Agriculture, and ample material to be had free from fire insurance companies, their local agencies, and from such organizations as the National Board of Fire Underwriters, New York City. Then, if additional popu-

lar reading with much bearing on construction is desired, one may well read a book to be found in many libraries, *Fire*, by Thomas F. Dougherty, Assistant Chief, New York City Fire Department. As rodents often cause fires, by gnawing away electrical insulation and causing short circuits through their bodies, United States Department of Agriculture publications on rat-proofing give useful information about fire protection.

**Dampness.** An important and often neglected safeguard of family health is elimination or prevention of excessive dampness, which, medical authorities agree, lowers resistance to disease, fosters the breeding of mosquitoes and other carriers of disease, aggravates colds and other ills, and contributes to rapid deterioration of buildings.

As a factor of safety, it is recommended that all wet spots and stagnant pools near a home be drained and that special attention be given to provision for making cellars, and the space under houses without cellars, dry and moisture resistant.

**Other Safety Factors.** A fundamental hazard in homes is sometimes caused by the careless severing of important structural members in a house or other building, along with the weakening, from rot, perhaps, of such members.

Life and limb are often endangered by the failure of the home owner to provide rails on cellar and attic stairs, or by the provision of rails that are too high or so arranged that children may fall under them.

Rotted, or otherwise neglected, or poorly constructed stairs, porches, and porch rails are also a menace, as are poorly lighted stairs and poorly defined top and bottom steps, which in many cases warrant special painting.

The absence of screens, the use of untested water supplies, unsafe electric wiring and devices, defective, obsolete, or inadequate plumbing, and leaks in gas mains are all sources of danger. Likewise sewer gas and stove or furnace gas are hazards to be guarded against.

Power tools and machines used on farms and in home workshops may be sources of danger to both children and adults. They should be protected by safety guards, as they are in industries.

Likewise appropriate street-front fences, which often represent an increase in the value of a home as well as an aid to privacy,

and a safeguard for children against traffic, may be deemed desirable safety factors.

### Health

Considering the problems of housing and health, a summary of an article by Dr. James Ford states:<sup>3</sup>

"Houses may contribute to ill health through: (1) Improper location of building on wet or poorly drained land, (2) fire risk, (3) unsafe and defective structure, (4) defective orientation, (5) excessive height of neighboring buildings which shut off light and air, (6) overcrowding in the same building, (7) land overcrowding, (8) room congestion, (9) inadequate plumbing, (10) lack of proper ventilation, (11) poor lighting, (12) poor and inadequate equipment, (13) unhealthful location in an undesirable residential district." p. 625.

The *Manual* states there appears to be a direct relationship between infant mortality rates and congestion, and between infant mortality rates and poor ventilation, and notes that, in analyzing health and housing factors, the racial resistance and racial susceptibilities of various groups must be taken into consideration.

It is further stated, in the summary:

"A comparative study of figures of 71 cities showed a falling mortality rate with an increasing sewer and water-pipe mileage; also a falling mortality rate with an increasing acreage of streets and parks. The conclusion is that the distance separating buildings affects the mortality rate. . . .

"The great preponderance of medical testimony shows the positive values of sunlight. . . . Infectious diseases increase as the amount of sunshine decreases. From all evidence gathered the value of light and sunlight is of great importance. Studies show that it is possible to obtain a half-hour of noon sunlight or its equivalent in sunlight intensity in every room of every house 25 feet square without using more land than is customary in usual subdivisions with lots 40 x 100 feet. . . ." p. 626.

**Ventilation and Air Conditioning.** It is established that proper humidity or moisture in the air, as well as its temperature and movement, have a bearing on family comfort and health. Infant illnesses, colds, and other respiratory ailments are aggravated where the air is either excessively damp or dry. Some moisture is necessary to prevent the drying out and opening of joints or cracks in furniture, woodwork, and floors; but extreme moisture, equivalent to dampness, is undesirable.

The three primary factors in proper air conditioning are temperature, moisture, and movement of the air.

---

<sup>3</sup> Halbert, Blanche (Editor), *Better Homes Manual*, Chicago, University of Chicago Press, 1931.



Temperature, readily ascertainable by the use of common thermometers and in large measure stabilized by the use of thermostats, is generally deemed desirable between 68 and 70 degrees Fahrenheit, but it is noted that people in southern climates require for their comfort higher room temperatures than those to which people in northern climates are accustomed.

The moisture content of the air can be determined by the use of simple instruments called the psychrometer and the hygrometer, which are described, along with the sources, measurement, and regulation of moisture in rooms, by Phelan.<sup>4</sup>

Movement of the air in rooms is stimulated by the circulation through fireplace flues and by the proper arrangement of rooms and openings; the moisture content is affected by the opening of windows and by forced ventilation.

The determination of favorable air conditions in homes may be gauged, within reason, by desirable body comfort.

**Plumbing.** A good system of plumbing with a supply of pure potable water has been said to be the most important single contribution of modern civilization to comfort, health, and elimination of disagreeable housework. Those who have been accustomed to its advantages can have but little realization of the toil that is required, particularly in winter months, to pump and carry water from a well or spring, and of the difficulty and unpleasantness of disposing, in one way or another, of the wastes which plumbing fixtures and house-drainage systems carry away so easily. A group of sanitary engineers and plumbing experts<sup>5</sup> formulated the following basic plumbing principles which have been widely accepted:

1. All premises intended for human habitation or occupancy shall be provided with a supply of pure and wholesome water, neither connected with unsafe water supplies nor cross connected through plumbing fixtures to the drainage system.

2. Buildings in which water-closets and other plumbing fixtures exist shall be provided with a supply of water adequate in volume and pressure for flushing purposes.

3. The pipes conveying water to water-closets shall be of sufficient size to supply the water at a rate required for adequate flushing without unduly reducing the pressure at other fixtures.

---

<sup>4</sup> Phelan, Vincent B., *op. cit.*

<sup>5</sup> Subcommittee on Plumbing of the Building Code Committee of the U. S. Department of Commerce from whose report, *Recommended Minimum Requirements for Plumbing*, (Washington, U. S. Government Printing Office, 1929, 35 cents), the basic principles are quoted.

4. Devices for heating water and storing it in "boilers" or hot-water tanks shall be so designed and installed as to prevent all dangers from explosion and also prevent a back flow of hot water through a meter connected with a public water supply.

5. Every building intended for human habitation or occupancy on premises abutting on a street in which there is a public sewer shall have a connection with the sewer, and, if possible, a separate connection.

6. In multiple dwellings provided with a house-drainage system there shall be for each family at least one private water-closet.

7. Plumbing fixtures shall be made of smooth, nonabsorbent material, shall be free from concealed fouling surfaces, and shall be set free of inclosures.

8. The entire house-drainage system shall be so designed, constructed, and maintained as to conduct the waste water or sewage quickly from the fixture to the place of disposal with velocities which will guard against fouling and the deposit of solids and will prevent clogging.

9. The drainage pipes shall be so designed and constructed as to be proof for a reasonable life of the building against leakage of water or drain air due to defective materials, imperfect connections, corrosion, settlements or vibrations of the ground or building, temperature changes, freezing, or other causes.

10. The drainage system shall be provided with an adequate number of cleanouts so arranged that in case of stoppage the pipes may be readily accessible.

11. Each fixture or combination fixture shall be provided with a separate, accessible, self-scouring, reliable water-seal trap placed as near to the fixture as possible.

12. The house-drainage system shall be so designed that there will be an adequate circulation of air in all pipes and no danger of siphonage, aspiration, or forcing of trap seals under conditions of ordinary use.

13. The soil stack shall extend full size upward through the roof and have a free opening, the roof terminal being so located that there will be no danger of air passing from it to any window and no danger of clogging of the pipe by frost or by articles being thrown into it or of roof water draining into it.

14. The plumbing system shall be subjected to a water or air-pressure test and to a final air-pressure test in such a manner as to disclose all leaks and imperfections in the work.

15. No substances which will clog the pipes, produce explosive mixtures, or destroy the pipes or their joints shall be allowed to enter the house-drainage system.

16. Refrigerators, ice boxes, receptacles for storing food shall not be connected directly with the drainage system.

17. No water-closet shall be located in a room or compartment which is not properly lighted and ventilated to the outer air.

18. If water-closets or other plumbing fixtures exist in buildings where there is no sewer within reasonable distance, suitable provision shall be made for disposing of the house sewage by some method of sewage treatment and disposal satisfactory to the health authority having jurisdiction.

19. Where a house-drainage system may be subjected to back flow of sewage, suitable provision shall be made to prevent its overflow in the building.

20. Plumbing systems need to be maintained in a sanitary condition.

Anyone who has had experience with leaking, stopped-up, or overflowing drainage systems, needs no warning that the quoted standards may well be rigorously applied.

**Sunlight, Sleeping Porches and Sun Rooms.** All authorities (see *Better Homes Manual*)<sup>6</sup> agree that adequate sunlight is vital to family comfort and health and is quite as important to the welfare of invalids, convalescents, and children as to the welfare and growth of plants.

Although a house well exposed to the sun is easier to heat, sunlight with its blessing of ultra-violet rays is of benefit to a family largely in the measure that it is freely admitted to family living quarters. On the other hand, in southern states, provision for shade at times may be hardly less desirable.

More and larger windows exposed to the sun may, of course, be helpful, particularly if those of living rooms and playrooms contain approved sun-ray glass.

The addition of a sleeping porch is desirable, particularly if it is supplied with windows, at least for protection against storms, as well as screens, and, in northern climates, is heated so that it can be used as an all-year-round place for a baby's naps and as a playroom for children. Also it is a boon to the housewife as a relief from crowding in other rooms or where rooms are too few.

The addition of a sun room may be wise if it does not cut off as much sunlight as it adds. If not carefully planned, it may spoil south windows admitting sun to the living quarters of the house. In some cases, however, south windows may be of little benefit.

In south dining rooms, for instance, the sun may be enjoyed but a scant hour a day, at lunch time. In some commuters' families, in which the children lunch at school, lights must frequently or regularly be used at the dining room meals, i. e., breakfast and dinner. In such cases, by sacrificing the south dining room windows, a sunny living room may be added, which may also serve as an auxiliary dining room on sunny mornings and for Sunday dinner. And if the windows are replaced by screens in the summer, out-of-door meals may be served in the greatest comfort.

<sup>6</sup> Halbert, Blanche (Editor), Chicago, University of Chicago Press, 1931.

If, again, the porch is so placed that it opens from both dining room and living room through French or tall glass doors, the whole downstairs will seem larger, airier, and sunnier. Also, a door to the kitchen may be of great help to the housewife.

In other houses, where the kitchen is big, old-fashioned, sunny, cheerful to look at, but involving much labor for the housewife, the old kitchen may, by adding windows on the south, be turned into a dining-sun-porch, and a new, strictly modern kitchen added. This one item of modernizing may in some localities add over a thousand dollars to the value of a house and increase its rentability. Moreover, if the house in question has only a kitchen and living room, such a plan adds a dining room and at once raises the house into a higher-value class.

If the house has a small living room and separate dining room besides the kitchen, there is a choice of several schemes:

The dining room may be thrown in with the old living room; and by adding or enlarging windows, perhaps adding a fireplace, built-in book shelves, and other beautifying details, a large and restful living room may be gained.

Second, for certain families, fitting the old dining room up as a study, playroom, or reception room may give added privacy to both children and parents.

Furthermore, in the plan of a dining-sun-porch, by using care in construction and furnishing, the room may be made into a sunny living room as well as dining room. For instance, if a long, narrow dining table, perhaps best made with a shelf and foot-rail beneath it, is placed against the inside wall, it may be used for magazines and books, and the greater part of the floor space can be kept for easy chairs and even a sofa in the sunniest part of the porch. For this reason it is important to make the dining-sun-porch as large as the budget will permit, with shelves and cabinets built under wide window sills, to give room for books and other family possessions. Such a room, if attractively and comfortably furnished, may in fact come to be the real center of the family life.

For the housewife who does her own work such a scheme means much. Because this room opens off the kitchen, she may spend many odd minutes in pleasant surroundings, may prepare vegetables, sew, or do her ironing there. And perhaps, most important of all, she may use that room as a playroom for young chil-

dren. Then they can keep their toys in the window cabinet and play in the sunshine under the eye of their mother in the adjoining kitchen. To the busy mother this extra room also offers a chance without constant work and worry, for keeping the formal living room straightened up for the chance caller.

**"Outdoor Living Rooms."** Except in congested city areas, most American families are fortunate in having room for gardens. In many cities, even the smallest plots are large enough for charming flower gardens, kitchen gardens, and playspace or lawns. But the problem remains as to how best to divide and utilize such space so as to get from it the most pleasure and comfort.

It is desirable that the street side of a house and grounds be made as presentable as possible. But to do that it may not be advisable to copy the old-fashioned showplace of the town, with its stretch of open lawn, dotted everywhere with specimen trees, and shrubs, and beds of cannas and geraniums. Instead, flower boxes, well-cut hedges, neatly edged paths, and healthy trees and shrubs may serve better.

In any case, a goodly part of a yard may well be reserved to the family, not to the town. And if, by careful planning and the planting of hedges, shrubs, and trees, a family can create an outdoor plot which is invisible to neighbors and to passers-by, it will have gained a kind of "outdoor living room," as landscape architects often call it, in which, weather permitting, the family can pass much of the time that it is free from school and office.

No plan goes further toward building up and safeguarding the health of children.

In privacy, summer meals may be served out-of-doors on roomy tables surrounded by comfortable chairs; a mother may prepare vegetables and fruits, do sewing, and care for children out of doors, while small children may play there in safety. Also, a father may read his evening paper—and his Sunday paper—in peace. Moreover, all members of the family can "garden" in the clothes that make gardening pleasant but do not add to one's prestige if seen from the street. And with couch hammocks and ordinary play equipment, possibly including a tennis court, the hope of keeping children at home may be realized.

It may seem that such a plan calls for a very large acreage. If one undertakes to have a tennis court, roomy playyards, large

vegetable and flower gardens, and a wide expanse of lawn as well, no little space is in fact required. But the idea of an out-door living room can be realized on a very small plot.

Many city houses whose back yards are barely twenty feet square have charming little outdoor living rooms in that small space. Such small city gardens are nearly always walled, insuring privacy at the start, and there may be only one small tree, perhaps trained against the wall, but vines and flowers about the borders and at the doorstep, and a central patch, either sown to grass or paved with flags, make the spot bright and attractive. Thus, in cities, many a back yard is converted into a place of beauty, and in such a place one can at least have a table covered with a sun umbrella, a few easy chairs, perhaps a hammock or a sand-box in one corner, a small see-saw or swing, or as much furniture as can be placed in a living room 20 by 20 feet.

A space 20 by 20 feet is sufficient for such an outdoor living room. On the small terraces of the expensive "penthouses" of New York and other cities, artistic and useful garden plans have been worked out. Yet there is hardly an owner of a suburban-village or country home who has not several times as much space from which to make his outdoor living room. Moreover, one definite argument in favor of the small instead of large outdoor living room, if all of the labor must be done by the family, is that large and elaborate garden places may keep parents and children always laboring and never playing.

Many beautiful and practical designs for planning such a plot are available in books on gardening and home grounds. Some helpful hints may be given that will guide a person in choosing, among those plans, one which will give the most benefit to ordinary family life.

A first and important step is to inclose a garden. A beautiful and useful, but in some sections costly, means of doing this is by planting evergreen trees about the edge of the area to be used, with caution in some areas against too much shade or barrier to breeze. But landscape architects agree that such trees should not be planted simply as a single row, unless they are of a type that will make a beautiful hedge, such as arbor vitae, or hemlock (in some sections readily available). Unless the evergreen hedge is a really fine one, thick and well kept, a continuous series of thick clumps of evergreens, of different types, serves best. Ideally, inside of

these, toward the garden, flowering shrubs will screen the space near the base of the trees, which is apt to be open and scraggly, and will add much to the beauty of the garden.

Such a plan is mentioned because it is ideal and affords year-round protection. It is in early spring and late fall that outdoors is the most attractive, and it is then that most of the garden work is done. But this plan is admittedly sometimes the most expensive of all, and is not advised unless one can afford it without sacrificing the development of the garden proper, or unless property is in rather an excellent residential neighborhood, where value is apt to increase, even though there is a great deal of traffic, in which case the planting of evergreens, that may take years to attain full beauty, may be an investment bearing a very high rate of interest by the time the property is sold or rented.

But most home owners cannot afford an extensive planting of evergreens. Those who must do their planting without spending much money have a wealth of trees, shrubs and hedges from which to choose. It is, therefore, worth while to study all the available literature, and plan carefully, to choose a scheme of planting which will fit the climate, individual plot, and family needs. A great many persons will find use for the handsome, cheap, easy-to-grow privet hedge, even though it requires frequent pruning. Flowering fruit trees or shrubs can also be used to heighten the screen nearest a neighboring house, to add springtime beauty (and perhaps food for the table) since the fruit tree gives enough shade for a group of chairs in the garden and usually does not shade flowers too heavily.

One other screening device in addition to those possibilities heretofore mentioned, may be considered by the family that wants a heavy all-year screen, but who cannot afford evergreen trees. A yard may be made at once private and beautiful and be utilized as a drying yard when necessary, or even have a swimming pool, if enclosed with a simple homemade trellis covered with roses, or vines, including the evergreen honeysuckle, which, in some parts of the country, grows so prolifically it is deemed a pest. As such trellis can usually be covered in a short time, it can be constructed with crosspieces a foot or more apart, so that, even if it be a hundred or more feet long, it is fairly cheap. One needs to make sure that the posts are strong and deeply set, so that the entire border will be and appear solid and permanent. If the whole

structure is homemade, and the vine or other roots are gathered in the woods or grown from cuttings, the entire enclosure is inexpensive, and the privacy and beauty gained will be gratifying. Also if the trellis is long and one wishes diversity, it can be broken up with arches, seats, or arched gateways, over which roses or other climbers are trained. Then the outdoor living room will be a reality by the second summer. Moreover, parts of such a trellis can be constructed during winter months and be ready for early spring planting of vines. Winter is also a good time to make or to repaint and repair garden furniture, which is necessary to the success of the outdoor living room.

**Playyards.** No matter how modest the family income may be, if only a small patch of ground is available, a playground for children is healthful, useful by way of relief to a mother, and practicable at little, if any, cost. If even a start is made, "the blessed ingenuity of busy little hands" is likely to do its part.

But here again certain ideals may best be kept in mind.

A playground to the south of a house is, of course, ideally located, since there children may safely enjoy the most hours of outside play, in the sunshine, protected from cold winds in winter and by shade in summer. Such a playground can advantageously be screened with shrubbery. Then children can feel pride of possession in their own place, and any litter of child belongings or wear and tear on grass will be concealed. And if in due course boys or girls undertake the inevitable shanty or cave, neighbors need not complain.

For equipment, perhaps a swing comes first. A rope or chain, a seat made from almost any board, a tree, or arbor, or two upright posts are all the materials required. But, if possible, there should be two swings, so that a little visitor can swing at the same time as a host, and so that peace between brothers and sisters can exist. A sand-box for a young child is also important and costs little, if anything. Like the playground itself, it is best shaded in summer and sunny in winter, protected from north winds and, if possible, from east to west winds as well. Thus, a sand-box close to the south of the house, protected by ell on east or west, or both, and placed under a shade tree that protects the child in summer but gives him the sun in winter, is ideal. And if a small playyard about the sand-box can be added by putting up a low fence, safety is assured. In bitter weather, when the ground is



cold, snowy or wet, a sand-box can best be moved to a south porch, if one is available.

To those things may be added, according to the space available, a slide, a see-saw, a small merry-go-round, a trapeze and ladders, and, in summer, a canvas or other swimming-pool, filled perhaps through the garden hose.

All such items can be purchased, ready for use, at small cost. And all of them can be made and be painted at home, at little cost.

For older children, a compromise must be made between a play-yard and flower garden. If older children are to play at home, they will need a stretch of level grass, unbroken by shrubbery, at least large enough for croquet or the various modifications of tennis adapted to small home grounds. But unless home grounds are exceptionally large, boys must play their soccer, football, and baseball elsewhere.

**Summer Comforts.** Probably the most important summer comfort a home can offer, in addition to shade trees and a patch of sod, is a large porch, where the seclusion provided is almost as important as the porch itself. When the addition of a porch is contemplated, it is urged that because new factors, such as the automobile and its traffic, have changed modes of living, departure be made from the conventional ideas of twenty-five years ago.

Today, in many instances, almost the worst place to put a porch is across the front of a house, if it faces directly on a busy street. Yet that is where it once was always found. Modern architects fortunately have done much to change this vogue, but many homes, particularly of types built without the advice of a skilled architect, continue to expose porches to the noise of traffic and the gaze of motorists.

In the horse-and-buggy days, when small-town life afforded few diversions and both parents and children found their chief pleasure in saluting acquaintances strolling or driving past, the front porch was a social factor. But life today, even in villages, with cars, movies, radios, and automobiles, offers too many rather than too few diversions, and the family seeks easy chairs on the porch for relaxation and quiet rather than in search of excitement. Moreover, in modern life, fewer persons stroll past. Those few are seldom personal acquaintances, and instead of the not unpleasant sound of horses' hoofs and crunching wheels emphasizing

the evening quiet, there is often the nerve-shocking noise of automobiles and horns on almost every street in every village, while in congested places the ceaseless noise of traffic is destructive to both nerves and conversation. In fact, only in the rural areas, in secluded streets or on expensive estates with plots of several acres does the front part of a house usually offer quiet seclusion and rest.

Yet a porch is essential if the family is to have relief from summer heat and if the younger children are to have a proper place on the many days of the year when the yard is wet or cold.

Obviously no sweeping rule can be made about the location of a porch, in part because, at best, its location is more or less governed by the importance of keeping sunny windows intact, preserving house and yard arrangement, and securing seclusion and quiet. But home owners are urged not to cut off the sunlight of the only living room windows with a porch.

Although a south porch, if shaded or protected with awnings or shrubbery, may be coolest in summer and is likely to look out on a garden, its value does not make up for the loss of sun in the living room in winter. If the south side of the living room, because of its seclusion, its view of a garden, or its advantages to the young children seems to be the only place for the porch and the living room has only south windows, all of which must be sacrificed, then the porch can sometimes advantageously be given a glass roof, or a paved terrace with an awning for summer use can be provided.

If only grown-ups are to be considered, a terrace in such a situation is practically always the best choice. The omission of the roofed porch means a considerable loss of outdoor play to children, however, which is a factor to be considered where there is a young family, especially in the family where the mother is houseworker and the children must play without much supervision.

In many modern floor plans, the living room occupies nearly half of the downstairs and has windows facing three ways, one of them usually south. In making plans for such a home, a porch may be placed next to the living room so that it faces either the side or rear of the lot, depending on which offers greater seclusion or the finer view. In such a plan it is advisable to double the window space on the two sides of the living room not cut off and, if possible, to use one or two French glass doors to lead



*Photograph by Rubin Thompson*

*Courtesy of Better Homes in America*

This five-room cottage was modernized by the Knox County, Tennessee, Better Homes Committee. The house before improvement.



*Photograph by Rubin Thompson*

*Courtesy of Better Homes in America*

Knox County house after improvement and planting. This project was awarded special mention by the Better Homes in America Awards Committee in 1929.



*Courtesy of Better Homes in America*

The reception hall of an apartment in Charlottesville, Virginia, before it was reconditioned by the Better Homes in America Committee of Albemarle County.



*Courtesy of Better Homes in America*

All the work of reconditioning was done by farm women of Albemarle County who made this reception hall over for a rest center for farm women marketing in the City of Charlottesville. Artistic quality has been achieved at a relatively slight expense.

to the porch, so that the living room will have plenty of light and sun.

A porch facing either east or west may be provided when the house faces east, has a living room facing south, east, and west, and a garden with the major part of the lot at the south. Or the porch may be on the south, leading to the garden, while in the living room the east and west windows provide morning and afternoon sun. Then, by making glassed frames to fit the east and west ends of the porch, the family will find it comfortable to sit out-of-doors probably an extra month in both spring and fall, the children can play out the year round, and the baby has an ideal place for out-of-door naps. With such a floor plan, moreover, the dining room on the northeast gets the morning sun and the kitchen on the southwest has sun in the afternoon.

Incidentally, in redesigning a floor plan, it is to be remembered that there is nothing to compel a house owner to put his living room on the street side or front of the house, a custom dating from the day of relatively quiet streets. Particularly where houses are located in rows side by side on small, adjoining lots, front porches are noisy and exposed, and back yards provide many unused possibilities.

Accordingly, when a new porch is contemplated, it is urged that a skilled architect be employed with the purpose of making the most of any house plan.

### **Interior Arrangements**

The primary consideration of the suggestions made by this committee has been the health of the family. In many instances, however, interior improvements looking to privacy, convenience, arrangement, and equipment are no less desirable.

Thus it can well be laid down as an ideal worth striving for that every member of a family should have his own room. Moreover, if it is at all possible, there should also be a guest room. For example, a family of father, mother, and three children ideally should have six bedrooms, no one of which has to be traversed to reach another.

This ideal brings up one of the most desirable qualities of many old houses, which, after being modernized at least in equipment, often afford families a much more comfortable and happy existence than new houses representing the same cost, largely because

such old houses were built when materials and labor were relatively cheap and families were large, with the result that they have as many bedrooms as are contained in expensive houses that are built today.

By skilled modernizing and beautifying of the interior, along with reconditioning of the exterior, many an old house may be transformed into a roomy, beautiful dwelling of very high resale or rental value or for occupancy by the owner's family.

**Attic Rooms.** In working toward this ideal of privacy for every member of a family, owners of homes of many types are often surprised to find helpful alternatives.

One of the simplest and most economical of these is finishing attic space for bedrooms. Often a poorly lighted attic may be made both habitable and charming by cutting one or more dormer windows through the roof, in itself perhaps an improvement on exterior design. Such attic rooms may be made comfortable if all the partitioning and ceiling is constructed of wall board and if even a rough floor, when made firm and even, is covered with inlaid or other linoleum. Also such bedrooms, if provided with adequate egress in case of fire, may be used as guest chambers, may be rented, or be used for children. If a large attic space is to be finished for two people, however, it is suggested that such space be made into two rooms, with each one giving private access to the stairway, on the theory that a small room for each is far more desirable than a large room for two, particularly if an added dormer in each room can be provided to supply needed cross ventilation.

It is also to be remembered that by using the simplest plumbing fixtures, an extra bath may be added between attic rooms, at a reasonable cost, in a space as small as 5 by 7 feet.

**Repartitioning of Large Rooms.** Particularly in old houses, there are often bedrooms so large that they can be advantageously divided into two comfortable rooms. Thus a master bedroom may be large enough to provide two rooms, or at least one with an adjoining dressing and sewing room.

Also an upstairs "deck" or sleeping porch can sometimes be advantageously inclosed as a nursery, so that the room formerly used as a nursery can be turned over to the older members of the family, or be used as an extra bedroom. If the sleeping porch

is enclosed with windows as well as screens and plenty of heat is provided, it will afford an excellent sleeping place for the baby.

**Rearrangement of Downstairs Rooms.** Many an old house that may be bought for a reasonable price has as many as three downstairs living rooms in addition to a dining room and kitchen. These rooms were usually called the parlor, library, and sitting room. But a more beautiful and more comfortable home may be possible if two of these rooms are thrown together (save when two living rooms are badly needed) into a spacious living room. The third room may sometimes be refinished to advantage as a bedroom with closets partitioned off and, if possible, a bathroom provided. Such a downstairs bedroom is often preferred as a master bedroom, or it may be kept as a guest room.

As a health warning, it is urged that, in planning a room for every member of the family, children be considered before guests. Oddly enough, many homes boast a large sunny spare room while an eighteen-year-old daughter may be forced to share a room with a small child who goes to bed right after supper, with the result that the older girl has no place in the world to call her own. Such a girl frequently prefers a job and boarding in some other town, where at least she can be in larger measure independent. It may, therefore, be better to give a spare room to a daughter or son and crowd the family only on those occasions when there are guests.

To add more comfort to the whole family life, even when there are no guests, it is suggested that a downstairs bathroom be provided where possible. And if such a bathroom, or toilet, opens off a downstairs hall or is near an outside entrance, it will eliminate running up and downstairs by small children, often accompanied by an elder, and therefore means not only fewer steps but less wear on steps and carpet. Moreover, such a bathroom is a welcome convenience when there are guests in the home.

**Playrooms.** Another way to make separate rooms for young children is to find a place in the house, on a first-floor sun-porch, in the attic if it is well finished, or if absolutely dry, warm, and provided with at least one sunny window, in the basement, for a children's playroom.

If a "children's room" on an upper floor must have two or three beds and bureaus in it, there is usually little room left for play, and not only are the older members of the family annoyed if

they must enter the only living room and trample over toys, dolls, blocks, trains, etc., but the children are really the chief sufferers.

If, therefore, children have a room with shelves, cupboards, and other places for their toys, plenty of space to play, perhaps extra electrical outlets for an electric train, the bedroom for two or three will not seem cramped.

And if the arrangement of the house is such that a playroom has a bathroom adjoining it and the playroom may be used also for a dressing room, more space is gained, and windows in the bedroom may be opened wide at night with assurance of a warm place to dress in the morning, and in the summer the bedroom may be a good substitute for a sleeping porch.

Attractive as a basement recreation room may seem, it must conform to certain standards unless it is to be a health menace instead of a health promoter. It must be as dry as any upstairs room. The floor and walls should be carefully finished. And the house should be so set on the ground—or the ground so graded—that there is adequate space for windows, preferably in this order, (1) south, (2) east, (3) west. If only north light is provided, a basement is a poor place for children to play unless there is a great deal of window space, unshaded, on that side. But these precautions apply particularly to winter use. In summer, the basement in some houses may, on rainy and other days, be the most comfortable part of the house.

This arrangement for one place to sleep and another place for recreation may also be used to provide partial privacy for older children. Thus if two children *must* sleep in the same room and no corner of the house affords an adequate place with good ventilation for another bedroom, there often can be found a corner or alcove that may be partitioned off for a playroom. In many old upstairs halls there is space to make a full bedroom. In others the space is too narrow, but, by sacrificing the end with a window, a boy or girl may have a small room, perhaps only 6 by 8 feet or so, where he or she may have two comfortable chairs, a table, shelves for books, and a desk for personal possessions. Also such a small room may serve as a dressing room and, in this plan, the bedroom itself, except to accommodate the second child as a place to sleep, can then belong to the other child who keeps his things there. There each child can pursue his own way of living and express his own individuality with few restrictions.



**Making Pantries into Rooms.** Many an old house had not only a colossal kitchen but a huge pantry. In modernizing such a kitchen, often enough space is available for much needed equipment and even for a breakfast nook without using the pantry at all. By enlarging the pantry window, if there is only one window, or by making it a casement window, a sizable and comfortable den may be provided for an older child if the child's father does not exercise preference for it. If he does, it may be as well in the end, for any father who has once tasted the joys of privacy himself is not likely to deny it to any of his family.

**"Outside" Rooms.** When a house does not afford a single corner for increase of privacy, and partitioning and enlargement are out of the question, an outside building may often be used for a child's daytime hours.

The best semi-outside room to be used for such conversion is the woodshed, often built as an integral part of colonial and other old houses, or the summer kitchen, where practicable, in the South. Such a wing is often so well built that by the use of insulation, wall board, and flooring a room may be made as comfortable as those inside the house. If a new heating plant is being installed, it may be possible to run a pipe to this room with small extra expense; and then, as in many cases, this room can be used as a guest room or room for an older child. A stove or fireplace can be used if heat from other sources is not available.

In any case, very little change is necessary to fit such a room as a study or workshop—and to many a boy the possession of a workshop is ample substitute for a room of his own even though he must share his sleeping quarters with a brother.

In the same way, use can be made of an old tool house, milk house, corncrib, or a corner of an old barn, and the labor may often be done with added enjoyment and profit by the boy who is to use the place.

In some small suburban homes, families have added built-in garages. Then old garages can be made into "outside" rooms, and if ingenuity and a few materials are used to improve the lighting, appearance, and setting of such a building, even to the extent of providing a fireplace in it, it may serve as a "little estate" for a boy, as an office, or even as a guest house.

In any case it is suggested that, before an old garage is torn down, consideration be given to moving it, taking it down and

reassembling it, or transforming it into something more useful than firewood.

**Kitchen.**<sup>7</sup> In families where there are two or more children and the mother does her own housework, she perhaps spends a third of her working time in the kitchen.<sup>8</sup> If she does both washing and ironing, she spends perhaps half of her time in the kitchen or laundry. For her it is therefore important, first, that she provide herself with every possible labor-saving arrangement in order that her health and nervous energy be conserved, and that her time be saved for the supervision and companionship of her children; second, that the kitchen be made as pleasant and attractive a place as is possible, since it has direct bearing on her health and spirits, and indirectly, on those of the rest of the family.

In finishing the floor, ceiling, and walls of the kitchen, it is of prime importance that they should have smooth, easily cleaned surfaces that will look clean as well as be clean. Thus, one may scrub a wooden floor and rough plastered wall so that they are perfectly sanitary, but they usually look smeared and dingy as a result, and the scrubbing involved in achieving this poor result is a considerable drain on the housewife's strength.

Linoleum, rubber tile, and other similar floor coverings are practical for a kitchen floor, since they provide a smooth, decorative surface. Water can readily be removed from such a surface and, when scrubbed, it dries readily. If such a covering is laid on a firm, level base; and cemented securely, cared for and coated periodically, it should last for years.

Among the cheapest wall finishes, and a satisfactory one, is washable paint. If a housewife works out a pleasing color scheme for walls, floor, and ceiling, and uses washable paint for walls and ceiling, a kitchen can be kept clean, attractive, and in good repair for years. A housewife usually prefers to do her own planning of color schemes and she should choose floor covering that she will not tire of rather than that which seems striking at first sight. She may well avoid dingy "mottled" colorings as they never look so fresh, although they require quite as much cleaning, as the fresher colored, clean-cut patterns. A simple pattern is apt to

---

<sup>7</sup> See "Household Management and Kitchens," *Publications of the President's Conference on Home Building and Home Ownership*, Washington, 1932, Vol. IX.

<sup>8</sup> *Ibid.*, pp. 150, 153.

please one longest, and the simplest square tile patterns are especially good and clean looking.

In choosing the color for the walls and ceiling the color of the floor covering should be considered. Nor should it be forgotten that light shades of color, such as yellow-green or cream, are suitable for dark kitchens. An overbright kitchen will seem cooler in summer if the walls are pale green or blue green.

A kitchen always contains so many objects of unrelated color and form that it will provide a less cluttered appearance if wood trim and walls are done in the same color, and the ceiling is finished in the same color or one or two shades lighter. If it is desired to make woodwork a different color, white or cream, or pearl gray with some color schemes, are usually satisfactory. An all-white kitchen is tiring to eyes and nerves, but a kitchen may look neat and inviting if ceiling, walls and trim are all done in pale cream color. Moreover, such solid neutral backgrounds set off nicely the equipment, particularly if it is colored, which a housewife may choose, for not only sinks and refrigerators and pots and pans but also washers and stoves may now be had in pastel shades. Indeed, a modern kitchen may be as much of a nerve shocker as an old one unless one carefully plans a simple color scheme in the beginning and adheres to it in all future purchases.

If one is installing all new kitchen plumbing fixtures, and must have shelves, drawers, a new stove and, say, a refrigerator, at one time, the housewife may have to plan with great care to stretch a limited budget to include all these necessities. Careful planning always comes first and buying second.

If one cannot at once afford to buy all needed articles of first quality and wanted size, it is important to use most of the money for the articles that are indispensable, the replacement of which means the most loss. For instance, if the family numbers four to six, it is a great mistake to buy a small refrigerator and a small stove, both of which may be a dead loss, or a rather large loss, when they have to be replaced. Also, because of the plumbing involved, it is unfortunate to install a sink which one expects to replace as soon as possible. Even a clean oilcloth floor covering can be used for a year or two until a more enduring cover can be laid. But the purchase of the most modern stove, the best refrigerator that can be afforded, and other essentials to kitchen comfort are important.

Meanwhile, one can use many fairly satisfactory makeshifts while working toward an ideal kitchen. For instance, homemade open shelves for the storage of dishes and staples may be set over the sink, over tubs or refrigerator, and a broom closet can be put together so quickly, or be bought so cheaply, it can probably be added at first. So also can a set-in ironing board, which is important in the well-kept kitchen. An old chest of drawers, or two of them, painted the color of walls or trim and mounted on casters, will afford a temporary drawer space, while any solid old table, preferably with a drawer, or even a homemade table painted and covered with a pastel plain oilcloth, will serve until the housewife can acquire the table or cabinets she undoubtedly covets. Again, if curtains are added to the shelves, the kitchen can be made attractive and usable while one waits for glass-covered cabinets and scientifically arranged units.

In buying a sink with a dishwashing unit, a stove, refrigerator, or washer and ironer, one should do extensive shopping in order to choose the articles best suited to a kitchen and the needs of a family. One can then also be sure of getting reliable products manufactured by well-known firms, or those with the approval of institutes conducted by different magazines and other organizations. Cheaper products, produced perhaps by new firms, may not have survived test and long trial, and a housewife cannot be so well assured of service in buying them as she is when she chooses standard makes. Cheaper products may be defective in design and materials. However, once the desired design and pattern are established, comparison of competitive prices may indicate the choice. Moreover, it is sometimes advantageous to buy, perhaps through local plumbers, used but suitable units, or "seconds" that are fundamentally sound.

Various magazine and other institutes have made a scientific study of arrangements and plans of model kitchens.<sup>9</sup> But it is urged as a measure of prudence that, while plans for a kitchen are being made, a dependable plumber, particularly one familiar with the plans of the home, be asked for advice, since, in some instances, the existing arrangement of pipe lines may be a governing factor in replanning.

Housewives have individual systems and preferences, but certain additional features are worth consideration.

---

<sup>9</sup> *Ibid.*

It is more important to place the stove near the sink than near the refrigerator.

The dining room door should not swing so that one must walk around behind it with each load of dishes from the dining room. A double-swinging door is usually convenient.

If, further, a housewife studies her daily kitchen routine, she will discover for herself many other considerations that might be embodied in any plan. For example when, and only when, the place of the permanent articles has been decided by her, it is suggested that she fill in about them, on paper, as spacious and elaborate a system of shelves, drawers and tables with worktops as she may need. Thus, each of the four sides of a kitchen may be sketched separately, these cabinets and drawers being drawn to scale about the principal features, such as the stove and sink.

### Electricity in the Home

When possible, electricity should be used for light. First, for reasons of safety; next, for reasons of health, since it provides the only way in which a house ever has really adequate lighting with relief from eyestrain; third, because, once installed, it eliminates all labor such as the housewife expends in caring for oil lamps.

The comfort of plugging reading lamp connections into sockets in perhaps every corner of every room, beside every chair, beside fireplaces, beds, mirrors, and tables may well belong to every family. The cost is seldom prohibitive. Installations last for many years. Building regulations and regard for fire hazards make it necessary and wise to have the main work done by trained electricians. Inexpensive but charming lamp-shades can be made at home. The money spent to provide electric lighting will afford beauty and comfort to a home and it is always a desirable factor when renting or resale is considered.

Many pleasing wall fixtures provide good decorative effects. Some are reproductions of graceful sconces, lanterns, etc., in wrought iron or steel, hand-wrought brass and copper, and some cost no more than the fixtures of ten years ago. For people who desire these modern fixtures and who can afford them, they greatly help to decorate a room if they are used sparingly and carefully. Thus a pair of sconces flanking a hall mirror over a table, or used at either side of a fireplace mantel or carefully placed over table or sofa, may give a far more restful effect than scattered wall

decorations of other types. And even when so used the effect is softer if such lamps are shaded with fabric, parchment, amber, mica, or shell. Table lamps can be made from vases, pots, jugs, and other pottery or glass articles.<sup>10</sup>

Competition between manufacturers has resulted in such a confusing array of electrical equipment that the housewife who isn't wary may spend all her money on things less desirable than others. It is therefore best to concentrate on those things which really lighten labor and bring a maximum of comfort for the money spent.

Where a housewife cannot have her laundry done, an electric washer should be helpful. No housewife should be required to do the back-breaking job of family washing by the old washboard method if she can be provided with an electric washer. The electric iron has also long ranked as a necessity.

In the home with large rugs or carpets, a vacuum cleaner is a labor saver. The old days when a housewife, armed with a broom, swept herself into a state of nervous and intense fatigue in order to stir clouds of dust into the air whence it soon settled somewhere else are almost past. With the vacuum cleaner, however, the whole house may be really cleaned in less time than it once took to do one room—with almost no disorder to the house in the process. Therefore, a vacuum cleaner deserves a place on the list of necessities.

A delight to many women, and particularly to the mother of a large family or to the farm wife, is the electric dishwasher. It may relieve the mother of much unnecessary labor. The electric refrigerator is desirable. To every housewife its cleanliness and efficiency offer many advantages.

The importance of other electric appliances varies with individual needs, but four may be mentioned as having a bearing on health: The electric heater, the electric radiator, for between seasons and to furnish extra warmth on such occasions as baby's bath, the heating pad for use in illness, and the electric fan for hot seasons.

The electric stove may also be desirable in districts without gas, where the alternative is the wood or coal stove.

---

<sup>10</sup> See, "House Design, Construction and Equipment," *Publications of the President's Conference on Home Building and Home Ownership*, Washington, 1932, Vol. V, pp. 264-266.

Among other common electrical aids may also be counted such cooking devices as the percolator, waffle iron, table stove (for bacon, etc.), and sandwich toaster, since, with these, a woman who does her own work may achieve a dainty table and a quiet family breakfast, lunch or supper without continuous running to and from the kitchen.

### Gas in the Home

The use of gas in the modern home should be given careful consideration by the home owner. There are available, through organizations such as the American Gas Association of New York City, booklets dealing with various modern types of gas appliances which show not only the development in the field, but also something of the method of using them to greatest advantage. On the modern range, for example, the use of automatic lighters is a great convenience. The modern range may also be equipped with automatic temperature control. The experimental kitchens of the leading manufacturers have developed methods whereby the cooking in the oven of whole meals can be successfully accomplished, with great economy not only of gas but particularly of the housewife's time. The high efficiency of the oven compared to the top burners makes oven cooking very attractive.

One of the interesting new types of gas appliances which has come into the market is the imitation coal basket. This unit is used as a space heater and is quite attractive. Along similar lines, conventional designs of auxiliary space heaters can be used in remodeling a home.

Included among other useful appliances are incinerators, laundry dryers, water heaters, etc. Where necessary, chimney construction should provide ample flues to take care of these appliances. For homes in the higher-income class, the use of gas-fired central heating systems with or without air conditioning may be practicable, particularly in territories where natural gas is available. Refrigerators operated by gas are also available and are preferred by many householders.

## APPENDIX

### HOME INSPECTION CHECK-LIST

The following check-list is intended as a reference guide for home owners:

#### Basement

1. Is the basement entrance in need of attention?
2. Does the stairway need new treads and risers or a hand rail?
3. Can the stairway be painted to prevent stumbling in the dark?
4. Is the ceiling clearance sufficient?
5. Do the foundation walls require repairing or decorating?
6. Is the ceiling insulated?
7. Do the walls or floor require waterproofing?
8. Is the basement floor in need of repair?
9. Should drain-tile be installed?
10. Are the window sash in good condition?
11. Are window locks satisfactory?
12. Is the hot-water heater meeting requirements?
13. Can a hot-water coil be provided in the heating system?
14. Is a floor drain needed?
15. Are the laundry tubs satisfactory?
16. Is the fuel storage room satisfactory?
17. Can a coal chute be provided?
18. Would a cleanout door on the chimney be desirable?
19. Is the natural lighting sufficient?
20. Should new electric light fixtures be installed?
21. Are more convenience outlets desired?
22. Are water pipe shut-off valves included in the system?
23. Would a recreation room be desirable?
24. Should fruit storage space be provided?
25. Should a basement toilet be installed?

#### Exterior Walls

1. Does the brickwork require cleaning or repairs?
2. Does the stucco work require repairs or refinishing?
3. Does the stonework need attention?
4. Is the siding weather-tight and sound?

#### Heating

1. Is the boiler satisfactory?
2. Is the furnace meeting requirements?
3. Should heater covering be provided?
4. Is pipe covering needed?
5. Is the fire protection above the heater satisfactory?
6. Does the smokepipe require attention?
7. Are the radiators providing satisfactory service?



8. Do the valves function properly?
9. Is the oil burner in need of attention?
10. Should thermostats be provided?
11. Would an automatic feed system be desirable?
12. Would gas heating equipment be practicable?

### Electric Wiring

1. Is the system (such as BX cable—conduit—open, etc.) safe and meeting family needs?
2. Should a special power line be provided?
3. Would safety switch boxes be desirable?

### Plumbing

1. Are the water pipes meeting requirements?
2. Are shut-off valves needed?
3. Are the cleanout facilities satisfactory?
4. Is a new bathtub required?
5. Should an additional lavatory be provided?
6. Should a new shower be installed?
7. Is a new sink needed?
8. Are the toilets satisfactory?
9. Is a new hot-water tank required?
10. Would a gas water heater prove convenient?
11. Is a vent pipe needed?
12. Is pipe covering required?

### Kitchen

1. Could a more convenient arrangement be made?
2. Are the windows satisfactory?
3. Are all work surfaces lighted and does the ventilation system remove odors?
4. Is a new sink needed?
5. Are the drain boards satisfactory?
6. Is the table space ample?
7. Would a power dishwasher be desirable?
8. Could the range be more conveniently placed?
9. Could the refrigerator be more conveniently placed?
10. Is a new kitchen cabinet needed?
11. Has the gas stove a vent pipe?
12. Are additional convenience outlets required?
13. Should new light fixtures be provided?
14. Is the kitchen floor in need of attention?
15. Should new cupboards be provided?
16. Can the miscellaneous storage space be more conveniently utilized?
17. Would the installation of a breakfast nook be desirable?
18. Would a built-in broom closet be helpful?
19. Should a built-in ironing board be provided?
20. Could a built-in table be provided?

21. Is the installation of a ventilating fan desirable?
22. Would a dumb-waiter be helpful?
23. Should an incinerator be installed?
24. Are the faucets satisfactory?
25. Would an oven regulator be helpful?
26. Should a package or milk receiver be provided?
27. Is the cooking range satisfactory?
28. Does the entrance to the dining room require attention?
29. Is the back porch in need of repair?
30. Is the woodwork attractive?
31. Should the ceiling be redecorated?

### Dining Room

1. Does the dining room meet the family needs?
2. Is the trim attractive?
3. Do the shades need replacement?
4. Should the walls be redecorated?
5. Is the ceiling treatment attractive?
6. Is the entrance to the living room convenient?
7. Are the windows weather-tight?
8. Are the view and exposure satisfactory?
9. Is the buffet conveniently placed?
10. Are new convenience outlets desirable?
11. Are new ceiling lights needed?
12. Should side lights be installed?
13. Does the location of registers or radiators harmonize with the room arrangement?
14. Is the floor finish in need of renewal?
15. Is the location in relation to the kitchen desirable?
16. Would it be advantageous to have a new fireplace?
17. Would the installation of swinging doors be desirable?

### Living Room

1. Is the location desirable?
2. Does the size of the room meet requirements?
3. Is the wall treatment attractive?
4. Should the ceiling be redecorated?
5. Is the ceiling height sufficient?
6. Would the installation of a new fireplace be practicable?
7. Is the entry to the hall convenient?
8. Do the windows require attention?
9. Are the doorways satisfactory?
10. Does the room permit proper wall space for the piano?
11. Is the davenport conveniently placed?
12. Would a rearrangement of other furniture add to the room's appearance?
13. Does the floor finish require renewal?
14. Should new convenience outlets be installed?

15. Are the wall fixtures meeting requirements?
16. Would new ceiling lights be desirable?
17. Is the location of radiators or registers desirable?
18. Are the light switches satisfactory?
19. Should new bookcases be installed?
20. Are the view and exposure desirable?
21. Would the addition of an enclosed porch be practicable?

### Halls and Stairs

1. Is the front door in need of attention?
2. Is the front vestibule satisfactory?
3. Does the hall need redecorating?
4. Are additional coat closets needed?
5. Does the size of the stairway permit free passage of furniture?
6. Could stairs be installed from the landing to the kitchen?
7. Are the stair treads and risers of proper size?
8. Do the stairs need refinishing?
9. Are the landings in need of attention?
10. Is the upper hall satisfactory?
11. Is the headroom on the stairway sufficient?

### Closets

1. Would the installation of cedar lined closets be practicable?
2. Should an additional dress closet be installed?
3. Should new shelves be added?
4. Are additional hangers, hooks, and fixtures needed?
5. Should new lights be installed?
6. Would special built-in features, such as space for shoes and hats, be desirable?
7. Could a clothes chute be installed?
8. Would extra linen closets be desirable?

### Bedrooms

1. Is the room size sufficient?
2. Is the ceiling height ample?
3. Do the walls need redecorating?
4. Is the ceiling treatment attractive?
5. Is the exposure desirable?
6. Do the windows permit sufficient ventilation?
7. Does the wall space permit placing twin beds?
8. Is the wall space for the double bed convenient?
9. Is the dresser conveniently placed?
10. Does the wall space permit conveniently locating the chiffonier?
11. Does the wall space permit a dressing table?
12. Is the location of radiators or registers desirable?
13. Are new convenience outlets required?
14. Would the installation of mirror doors be desirable?

15. Are the light fixtures satisfactory?
16. Could an additional dressing room be installed?
17. Is the closet space sufficient?
18. Does the floor finish require renewal?
19. Would additional individual closets be practicable?

### **Bathroom**

1. Is the bathroom conveniently located?
2. Do the walls need redecorating?
3. Is the ceiling treatment satisfactory?
4. Should the floors be refinished?
5. Is the room size sufficient?
6. Is there a window to the outer air?
7. Are new clothes hooks needed?
8. Would new metal alloy fixtures be desirable?
9. Should additional built-in drawers be installed?
10. Are new convenience outlets needed?
11. Is an extra medicine cabinet desirable?
12. Is an extra mirror needed?
13. Could new lights for shaving be installed?
14. Would the installation of a new silent toilet be desirable?
15. Would a new shower be advisable?
16. Should a built-in tub be installed?
17. Are new towel racks needed?
18. Is the glass in the window opaque?
19. Would an extra door be desirable?
20. Would new built-in fixtures be desirable?
21. Is the tile height on the walls satisfactory?
22. Would a set of scales be desirable?
23. Should new recessed soap holders be installed?
24. Would a tub hand support be desirable?

### **Attic**

1. Are the stairs in need of attention?
2. Does the flooring require finishing?
3. Is the chimney satisfactory?
4. Is the ventilation sufficient?
5. Are the windows in need of attention?
6. Are additional heating facilities required?
7. Are new lights needed?
8. Would a playroom for the children be desirable?
9. Should an extra bedroom be partitioned off?
10. Are the storage facilities satisfactory?
11. Would the installation of heat insulation be practicable?

### **Roof Exterior**

1. Is the roofing material in need of attention?
2. Is the slope of the roof satisfactory?

3. Is the flashing around the chimneys in need of repair?
4. Is the height of the chimney above the peak of the roof sufficient?
5. Are the gutters and down spouts in need of reconditioning?
6. Should any down spouts be connected with the sewer?

### Miscellaneous Equipment

1. Are new radio wiring and antenna needed?
2. Would a concealed radiation system be practicable?
3. Would new laundry driers be helpful?
4. Would ornamental humidifiers increase the family comfort?
5. Is the installation of air conditioning equipment feasible?
6. Is a water softening system needed?
7. Would a basement workbench be desirable?
8. Should new radiant gas heaters be provided for any rooms?
9. Would special door and window hardware be desirable?
10. Should electric logs be installed?
11. Are intercommunicating telephones needed?
12. Would burglar or fire alarms be desirable?
13. Would an illuminated house number be helpful?
14. Are new silent sash pulleys needed?
15. Would a door bell transformer be helpful?
16. Are new screens needed?
17. Should extra awnings be provided?
18. Would outside hose connections be desirable?
19. Would new shutters add to the appearance of the house?
20. Should lightning-arresters be provided?

### Built-in Garage

1. Is the size sufficient to meet requirements?
2. Is the floor level satisfactory?
3. Is the drainage properly handled?
4. Is better fire protection needed?
5. Is the entrance satisfactory?
6. Are the lighting facilities adequate?

### Detached Garage

1. Is the size sufficient?
2. Is the entrance conveniently placed?
3. Is the floor in need of attention?
4. Is the door construction satisfactory?
5. Is the roof in need of renewal?
6. Are the windows satisfactory?
7. Are new lights needed?
8. Are the water facilities satisfactory?
9. Would a workbench be helpful?
10. Is extra storage space needed?
11. Is there sufficient lighting equipment?

**General**

1. Should new fences be provided?
2. Are the walks in need of attention?
3. Do the front steps require reconditioning?
4. Is the porch roof weather-tight?
5. Is the porch floor in need of refinishing?
6. Are new screens needed?
7. Is the driveway in need of attention?
8. Are new clothes poles needed?
9. Should playground space be provided?
10. Would new flower boxes be desirable?
11. Should trellis work be installed?
12. Would garden seats be helpful?
13. Should a drying yard be provided?
14. Is new planting desirable?

## INDEX

- Abbott, E., 199  
 Accident problem, need for statistical data on, 221  
 Accidents: home, 11, 54, 55, 56, 85, (tables) 201-4, 217-21; in New York State, 1930 (table), 204; prevention of, by superior construction (table), 208; street, in residential districts, 79-81; and bad housing, 53. *See also* Injuries  
 Adams, T., 199  
 Adler, 198  
 Aetna Life Insurance Company, 203  
 Air conditioning, 250-51  
 Allen, L. H., 52, 52fn  
 Alterations, "piecemeal," 245. *See* Reconditioning  
 Amalgamated Housing Corporation, 103  
 American Academy of Social and Political Science, 112fn, 150fn, 151fn, 152fn  
 American Federation of Labor, 51, 51fn  
 American Gas Association, 222, 271  
 American Prison Association, 154fn, 178fn, 183fn  
 American Psychiatric Association, 163fn  
 American Sociological Society, 132fn, 149fn, 196fn  
 American Standards Association, 61  
 "Americanization," 92  
 Anderson, V. V., 199  
 Apartments, growth of, 96, 103  
 Appliances: *See* Electric appliances; Gas appliances  
 Appraisal of home: before modernizing, 230; preliminary to reconditioning, 241-42  
 Areas, districts or neighborhoods in criminality, 134-43, 143fn  
 "Areas of deterioration," 19  
 Arrests, group, 178  
 Arson law, state, 84  
 Aschaffenburg, G., 199  
 Attic: improvement, 276; rooms, finishing, 262  
 Auburn, N. Y., 109fn  
 Badger, R. G., 199  
 Barnes, H., 199  
 Barrows, E. M., 180  
 Basement, improvement, 272  
 Bathroom: attic, 262; downstairs, 263; electrical hazards in, 65, 66; improvement, 276  
 Bathtubs: hand grip for, 63; hazards, 70-71  
 Baumes Commission, 140  
 Bedford Hills, N. Y., 109fn, 121fn, 147fn  
 Bedrooms, improvement, 275-76  
 Behavior: criminal, and physical defects, 195; environment and heredity in, 134; glandular influence in, 194  
 Behavior Research Fund, 115fn, 143fn, 169fn, 171fn, 198fn  
 Better Homes in America, 233  
 Better Homes Manual, 33, 36, 250, 253  
 Bianchi, L., 193  
 Bibliographical index, material on crime causation and housing, 199-200  
 "Big Brother Movement," 120fn, 129fn  
 Bingham, A. T., 199  
 Birmingham, Ala., 26  
 Blighted areas: elimination of, 104; reclaiming of, 104, 243-44  
 Blocks, selected, delinquency in, 158  
 Bloomington, Ind., 110fn  
 Boards, keeping of, 173  
 Bogardus, E. S., 199  
 Bolitho, W., 199  
 Bonger, W. A., 128, 150, 199  
 Booth, C., 162fn, 174  
 Boston, Mass., 1, 3, 87, 88, 92, 95, 175fn, 191fn, 243  
 Boston Dispensary, 2  
 Boston Psychopathic Hospital, 163  
 Boyle, E. F., 158  
 Brasol, B., 199  
 Breckinridge, S. P., 169, 174, 199  
 Brockton, Mass., 148fn  
 "Broken homes": as psychologic basis for crime, 162-71, 171fn; in delinquency, 169, (table) 170, 171  
 Bronner, A. F., 199  
 Brooklyn, N. Y., 103, 119, 130fn, 153, 178  
 Bruises, avoidance of, 72  
 Bryce, J., 91  
 Buhl Foundation, 99  
 Building code: as safety measure, 84; requirements for fire protection, 76-77  
 Building Code Committee of the

- U. S. Department of Commerce, 84, 84fn, 251fn  
 Bureau of Attendance, New York City Schools, 155fn, 156fn  
 Bureau of Juvenile Research, Columbus, Ohio, 166fn  
 Bureau of Mental Hygiene, New York, N. Y., 121fn, 147fn, 172fn  
 Burgess, E. W., 199  
 Burke, D. W., 199  
 Burns: accident fatalities due to, 217; in the home, 219-20; and conflagrations, loss of life from (tables), 205  
 Burt, C., 140, 196, 199  
 Bushong, E. M., 199  
 Business fluctuations, effect of, on social conditions, 127-28  
 Butcher, W. L., 199  
 Cabot, R. C., 88  
 Caldwell, M. G., 199  
 Campaigns, community safety, 82  
 Capitalism and crime, 128  
 Carbon monoxide, dangers of, 10, 74-75  
 Casualties: causes of, in fires (table), 207; home, statistics of, 201-4  
 Catholic Charities of the Archdiocese of New York, 118fn  
 Chamber of Commerce of the United States, 50, 56, 226  
 Chicago, Ill., 3, 19, 23-47, 53fn, 89, 90, 92, 95, 96, 110fn, 115fn, 122, 123, 131, 132, 133fn, 135fn, 136fn, 137fn, 138fn, 143, 143fn, 160fn, 169fn, 171fn, 175fn, 184, 198fn, 243  
 Chicago Commons Social Settlement, 147fn  
 Chicago Crime Commission, 110fn, 126fn, 164fn  
 Chicago Vice Commission, 121fn, 147fn, 172fn  
 Child: guidance in prevention of delinquency, 198; influence of environment on, 117; labor, cause of delinquency, 128  
 Children: dependent, rates of, and rates of delinquents (table), 47; school, home accidents to (table), 201  
 Children's Aid Society of New York, 140, 172  
 Children's Court of New York City, 120fn, 129fn, 157fn, 158, 158fn, 159, 159fn, 160fn, 183  
 Chimneys, safety from fire in, 60  
 Christman, E., 52fn  
 Cincinnati, Ohio, 53, 102  
 Cincinnati Bureau of Governmental Research, 90  
 Circuit-breakers, 66  
 Citizenship: bad, and poor housing, 158; and housing, 86-93, 102-4  
 City: areas, delinquency rates in, 131; as setting for crime, 129-34, 134fn; conflagrations, 77, (table) 213-16; congested areas in, breeders of crime and pauperism, 88-89; environment and crime, 129-30; growth and change of, and crime, 130-34; planning, zoning and housing, relationship between, 101-2; planning commissions, development of neighborhood units by, 104; structure, difference in gang life due to, 132  
 City Housing Corporation, 99  
 Civics as teaching community values, 96  
 Claghorn, K. H., 199  
 Clark, W. I., 3, 50fn  
 Cleanliness, and health, 12  
 Cleveland, Ohio, 26, 53, 92  
 Cleveland Foundation, 109fn, 180fn, 181fn  
 Cleveland Recreation Survey, 181  
 Close, C. L., 50fn  
 Closets, improvement, 275  
 Columbia University, 155fn, 156fn  
 Columbus, Ohio, 166fn  
 Commercial centers, Chicago, 33-34  
 Community: as unit of social control, disintegration of, 137; background as factor in delinquency, 91, 110, 135-36, 137-38; disorganization, gang a symptom of, 134; environment in individual development, importance of, 97-102, 102-3; fire problem, 76-79; in family inadequacy, 168-69; in gang code, 134; life, poor housing, overcrowding, etc., symptom of type of, 136-37; organization for safety, 81-83; organization for stimulation of reconditioning, 233; recommendations concerning, 104; recreation facilities, 182; residential development, amenities from (illus.), frontispiece; responsibility of, in delinquency, 120; structures in social development, 120-21; values and modernizing, 231; and housing, 1-104  
 Companionships, in crime, 177-79, 179fn



- Conduct: disorders, culture conflicts in, 125-26; and housing, 150
- Conflagrations: city (table), 213-16; and burns, loss of life from (tables), 205
- Congestion: areas, village relationships in, 98-99; room, 141; and crime, 129, 130; and delinquency, 129-30
- Congestion, housing: 158; effects of, 159-60; in Manhattan, 155; and crime, 89, 155; and truancy, 155-56, 176
- Construction: details, standards for, 227; home, for safety, 57-63; interior, for fire safety, 59-60; superior, prevention of fatalities by, 208
- Cook County, Ill., 23, 26, 47
- Cook County Juvenile Court, 131fn, 169, 171
- Cooley, E. J., 199
- Corrosion, annual cost of, 234
- Coulter, E. K., 199
- Country Club District, Kansas City, Mo., 100
- Crime: bad housing as physical basis for, 143-62, 162fn; causes of, difficulty of evaluating, 13-19; city as setting for, 129-34, 134fn; construction of bibliography on, 106-7; criminal family background as cause of, 167-68; disease as factor in, 191-92; effect of growth and change of city on, 130-34; effect of new environment in, 123-24; factors contributing to, 111-12; home as setting for, 143-47; immigrant children in, 123; individual character and, 16-18; influence of environment on, 188; intelligence as factor in, 190; isolating housing as factor in, 112; mental factors in, 190-91; needs as source of, 187; patterns of, affecting gang, 122; physical defects related to, 192; public opinion in, 122; social conditions factor in, 113, 120, 128; tradition of, in neighborhood, 134; and capitalism, 128; and city environment, 129-30; and congestion, 89, 129, 130, 155; and degeneration, 115-16; and economic conditions, 127-29, 175; and housing, guide for selection of materials on, 106; and immigration, 121; and inferiority, 187; and inner urges, 186; and leisure-time activities, 185; and mental disease, 190; and nationality or race, 126-27; and play, 180; and poverty, 140; and psychopathy, 194
- Crime causation: classification for materials on, 107-8; complexity of, 13-15, 108-15; concept of, 108-20; evaluating factors in, 119-20, 120fn; internal and external factors in, 115-17, 117fn; isolation of specific causes in, 19, 113; "natural history" in, 18; need to evaluate social, political, and economic development in study of, 114-15; societal forces and standards in, 120-21, 121fn; sound approach to problems of, 114; "vicious-circle" concept of, 15-16; and housing, digest of recent materials on, 105-200; and housing conditions, 13-19
- Crime Commission of Chicago, 110fn, 126fn, 164fn
- Crime Commission of New York State, 89, 89fn, 92. *See also* Shulman, H. M., 199
- Criminal: behavior, 116-17, 193-94, 195; careers, home influence in, 167; careers, physical condition in, 195
- Criminality: economic conditions in, 128-29; housing conditions in, 197
- Criminals: economic status of, 175; mental capacity of, 190
- "Crippled" families as source of delinquency, 164
- Crowding. *See* Overcrowding
- Cultural patterns, conflicts and changes in crime causation, 121-26
- Culture conflicts as cause of conduct disorders, 125-26
- Cuts, avoidance of, 72
- Dampness, elimination of, 249
- Dawley, 199
- DeQuiros, C. B., 199
- Deaths: accidental, in home, 54, (table) 201, 217-18; accidental, total annual in the United States, 54; and injuries through fires (table), 206
- Defective, environmental factor in criminal behavior of, 116-17
- Degeneracy of American home life, 109-10
- Degeneration and crime, 115-16
- Degenerative characteristics of criminals, 193-94
- Delinquency: areas, 22-47, 125, 142-43, 154; as form of group behavior, 198; bad companions in,

- 177; "broken home" as factor in, 120, 171; community as factor in, 91, 110, 120, 138; community situations reflected by main factors of, 136-37; complexity of factors in, 109, 113-14; complexity of kinds of, 108-9; constitutional factors in, 117; court cases as representation of, 142; "crippled" families as source of, 164; culture conflict as factor in, 125-26; data, treatment of, in terms of family, 196-97; defective discipline as cause of, 165; defective native endowment and defective environment in, 116; density of population in, 196; distribution of, 23-26; early initiation into, 115; economic factor as cause of, 175-76; environment as factor in, 111, 112-13, 116, 117-18, 166, 185-86, 189; extent of, in selected blocks, 158; family as factor in, 166, 168, 171; group activity in, 178; group treatment of, 198; heredity as factor in, 117-18, 185, 186, 193; home, as factor in, 112, 165, 195-96; in disorganized areas, 127; in "transition areas," 135-36; individual habits and ideals in, 188; individual "make-up" in, 118; juvenile, 29-33, 125, 145, 147, 169, 180, 181, 182-83; motives of, 113-14; nature of, 123-24; neighborhood conditions in, 139; neighborhood factor in, 141; occupation factor in, 174; order of importance of factors contributing to, 111-12; origin of, in home, 163; poverty as factor in, 174; prevention of, 154, 181, 198; produced by child labor, 128; rate, conditions in sections of high, 153; rates, 39-40, 40-44, 127, 131, 138, 142-43, 160-61; recreation spaces in reducing, 183; reduced by good homes, 162-63; relation of population decrease to, 36-40; sexual, factors contributing to, 110, 118; slums, primary source area of, 133-34; study of, needed, in terms of neighborhood units, 139; "transitional zone" area in, 131-32; and congestion, 129-30; and gangs, 160, 179; and home life, 159-60; and housing, 3, 13-49, 140-41, 146, 158-59, 188, 197; and instinct for play, 179-80; and intelligence, 119-20, 194; and leisure time, 183; and overcrowding, 111fn, 149, 152-53, 196; and parental supervision, 168; and playground adequacy, 182; and playspace, 184, 185; and poverty, 175, 196; and recreational supervised activities, 181; and spare-time activities, 108-9, 181
- Delinquent: behavior, 135-36, 137; child, slum the home of, 138; home of, conditions in, 165-66; mental characteristics of, 189, 190; patterns, transmission of, 137; study of, as person in social setting, 139
- Delinquents: boy, recruited from lower economic classes, 176-77; city, farm homes for, 166; defective physical conditions among, 193; family incomes in homes of, 172; family life in making of, 166-67; in various economic and social strata, 162; in various types of homes, 165; juvenile, rates of, in Chicago, (map) 27, (map) 28, (map) 30; juvenile, male, home addresses of, in Chicago, 23, (map) 25; juvenile, residences of, 157; male, rates of, according to nationality, 132-33; percentages of, coming from "broken homes," 169; physical condition of, 191; rate of, and community background, 137-38; rates of, 26-33, (table) 37, 43, 46, (table) 46, 47, (table) 47, (table) 170, 171; ratio of, according to parental conditions, 166; residence of, results of study of, 138
- "Den," remodeling pantry into, 265
- Denver, Colo., 26
- Dependency: family, Chicago (figure) 45, (table) 46; and rates of delinquents, 46, 47
- Dependent children, (table), 47
- Depreciation: rate of, 231; retardation of, 230; studies of, 233
- Des Moines, Iowa, 182
- Desires, inner urges, or inherited tendencies in crime causation, 185-87, 187fn
- Deterioration, physical, in delinquency areas, 34-36
- Di Tullio, B., 199
- Dining: porch, addition of, 253-54; room, improvement, 274
- Discipline, effect of lack of, 165
- Disease: as factor in crime, 189-91, 191fn, 191-92; spread of, through overcrowding, 5; and housing, 1-2, 3-8, 10
- District Court of Iowa, 182

- Districts, areas or neighborhoods, in criminality, 134-43, 143fn
- Division of Building and Housing, U. S. Department of Commerce, 232, 241fn
- Dodge, P. L., 199
- Doors, for fire safety, 60-61
- "Doubling up" of families, 168
- Dougherty, T. F., 249
- Dublin, L. I., 4fn, 217fn
- Dust, effect of, on health, 10
- Dwellings: fatalities by fire in (table), 208; fires in, (table) 209, (table) 210, (table) 211, (table) 212; losses by fire in (table), 209
- Ear, eye, nose defects, 192
- Eastabrook, A. H., 152
- Economic: classes, boy delinquents recruited from, 176-77; condition of home as factor in crime causation, 172-77, 177fn; conditions and crime, 127-29; dependency in delinquency areas, 44-47; factor, and crime, 108, 175, 196; factor in delinquency, 175-76; position, and arrests, 173; position of mother during daughter's adolescence, 172; status of criminals, 175; status of families in criminal careers, 176; and social and political factors in crime causation, 114-15; and social value of reconditioning, remodeling and modernizing, 225-26
- Education: for home safety, 81-83; public, and safety, 83-85; and housing, 93-97, 104
- Edmondson, E. H., 199
- Edwards, A. L., 86fn
- Efficiency, industrial, and housing, 50-53
- Electric: appliances, 67, 270-71; outlets, 269; wiring, improvement, 273
- Electrical: accidents in homes (table), 204; equipment, careless use of, 65-68; hazards, minimizing, 75-76
- Electricity in the home, 269-71
- Ellwood, C. A., 88, 88fn, 199
- Elmer, M. C., 199
- Emerson, H., 4fn
- Employment: conditions of children, parental attitude on, 172; reconditioning, remodeling and modernizing as stimulant to, 226
- Environment: as factor in delinquency, 111, 116-17, 163, 185-86; city, and crime, 129-30; evaluation of, difficulties in, 119; gangster a natural product of his, 135; home, as cause of juvenile delinquency, 145; influence of, 1, 110, 112-13, 117, 125, 188; new, contributing effect of, in crime, 123-24; of gang, "man-made" factors in, 132; social, influence of, on juvenile mind, 187; and heredity in crime causation, 115-17, 117fn; and mental deficiency in delinquency, 189
- Environmental: aspects of crime causation, 129-85; conditions, defective discipline as one of, 165; factors, influence of, 116-17, 117-18, 134; origins of delinquency, 166; and constitutional factors in delinquency, 117
- Equipment: electric, 269-71; electrical, safety suggestions for, 65-68; fire-fighting, 68-70; home, for safety, 63-70; miscellaneous home, improvement, 277
- Exterior: house, standards for, 227-28; materials, for fire safety, 58; roof, improvement, 276-77; surfaces, treatment for, 237; walls, improvement, 272
- Factory turnover, and housing, 52, 53
- Falls: as home accidents, 55, (table) 202, 217, 220; avoidance of, 70-72
- Families: "crippled," and delinquency, 164; "doubling up" of, 168; economic status of, in criminal careers, 176; in the United States, 223
- Family: as factor in human behavior, 171; background, as crime cause, 167-68; dependency, Chicago, (figure) 45, (table) 46; discipline in delinquency, 168; disorganization in delinquency, 169; function of, in social order, 166; in antisocial tendencies, 168-69; income in homes of delinquents, 172; life, bad, in delinquency, 166-67; treatment of delinquency data in terms of, 196-97; and housing, 12
- Farm homes for city delinquents, 166
- Fernald, 199
- Financing: home improvement, 242-43; home modernizing, 232
- Fire: alarm systems, 78-79; alarms, for dwellings, 69; deaths annually by, 56; departments, preventive

- functions of, 78; extinguishers, 68-69, 69-70; -fighting equipment, home, 68-70; -fighting, water supply in, 77-78; hazard, in housing problem, 56; hazards, housekeeping practices resulting in, 72-74; hazards in rural areas, 246; hazards, reduction of, 232, 246-49; losses, 205-16, 246; prevention, 76-77, 84; problem, community, 76-79; property loss due to, 54, 57, (table) 208; protection from, by proper construction, 57-61; -stopping, 60
- Fire Prevention Week, 83
- Fire Underwriters' Laboratories, 64, 69, 75
- Fire Waste Council, Chamber of Commerce of the United States, 56
- Fires: causes of, 246-47; causes of casualties in (table), 207; deaths and injuries as result of (table), 206; dwelling-house, causes of, (table) 210, (table) 211; dwelling-house, compared with total fires, 1930 (table), 209; dwelling-house, fatalities by (table), 208; dwelling-house, point of origin of, 57, (table) 212; losses by (table), 209; individual liability for, 84-85; safeguards against, 248
- First-aid chest, contents for, 11
- Fixtures, wall, 269-70
- Floors, treatment for, 238
- Food preservation, home, 11
- Ford, J., 16fn, 19fn, 199, 250
- Forest Hills Gardens, New York, N. Y., 100
- Furnaces, safety in, 63-64
- Furniture, treatment for, 238
- Fuses, replacing "blown," 73-74
- Gang: characteristics of, 178-79; code of, community influence on, 134; crime patterns affecting, 122; environmental influence on, 122-23, 132; in delinquency areas, 142; life, influence of city structure on, 132; membership, 177-79, 179fn; result of lack of other institutions, 134; social patterns affecting, 122-23; symptom of community disorganization, 134
- Gangs: and delinquency areas, 160; and supervised recreational activities, 181; and social instinct, 180
- Gangster: basis for mental attitude of, 124; natural product of his environment, 135
- Garage: fire hazards in, 247; improvement, 277
- Garden: development of, 255-58; hose, for fire-fighting, 68
- Gary, Ind., 110fn
- Gas: accidents, due to, 217, 218; appliances, 65, 271; effect of, on health, 10; equipment, safety in, 64-65; use of, in the home, 271
- Gault, R. H., 199
- Gehlke, C. E., 13fn
- Gillin, J. L., 199
- Glandular: disturbance as factor in crime causation, 195; influence in behavior difficulty, 194
- Glasgow, Scotland, 87
- Glueck, B., 17fn, 199
- Glueck, E. T., 88, 88fn, 199
- Glueck, S., 13fn, 88, 88fn, 105fn, 199
- Golway, E. A., 105fn
- Goodyear Tire and Rubber Company, 52
- Goring, C., 150, 199
- Green, W., 51, 51fn
- Grimberg, L., 199
- Grounds, house, standards for, 228
- Group: activity, and delinquency, 178, 198; arrests, 178; delinquency, 179
- Guest room, 263
- Halbert, B., 250fn, 253fn
- Halls, improvement, 275
- Handman, M. S., 124fn
- Hanmer, L. F., 199
- Harvard University, 106
- Hayes, 199
- Hazards, mechanical, in home construction 62-63. *See also* Fire hazards
- Health: consideration of, in home improvement, 250-61; housing factors affecting, 148, 150-51, 250; and housing, 4-12
- Healy, W., 169, 174, 198, 199
- Heating: improvement, 272-73; pads, fire hazards of, 75
- "Hell's Kitchen," 179, 180
- Heredity: in criminality, 193-94; in delinquency, 185, 186, 193; and environment, 115-17, 117fn, 134
- Herlihy, E. M., 88, 88fn
- Herman, S. J., 95fn, 103fn
- Heydecker, W. D., 199
- Hirsch, 146fn

- Home: accidental deaths in, (table) 201, 217-18, 218-19; accidental injuries in, 217-21; accidents, (tables) 201, (tables) 202, (tables) 203, (table) 204; accidents, means of injury in, 221; as center of social work, 163; as factor in crime, 111, 167; as factor in delinquency, 165, 195-96; as setting for crime, 143-77; building, for safety, 57-63; casualties, 201-4; conditions, in delinquency, 112, 147, 165-66; conditions, in resisting bad community conditions, 110; desertion of, 179; discomforts, and conduct, 151-52; economic condition of, in crime causation, 172-77, 177fn; economics as teaching home values, 97; elements extraneous to, in crime causation, 177-85; environment in crime causation, 197; environment in juvenile delinquency, 145; equipment, for safety, 63-70; hazards, 217; inadequacy of, cause of moral contamination, 163; influence of neighborhood on, 86-87, 140; injuries, (table) 201, (table) 202; inspection check-list, 272-78; interpretation of, 223-24; -life and degeneracy of American home, 109-10; -life and delinquency, 159-60; management, 70-76; of immigrant, 121-22; origin of delinquencies in, 163; owner, housing standards for, 226-28; owners, information on home improvements addressed to, 234-71; ownership, Chicago, (figure) 41, (figure) 42; ownership, and delinquency, 40-44, (table) 43; reestablishing of, 176; repair and remodeling, 223-78; safety in, 70-76; values, teaching of, 96-97
- Home improvement: by groups of houses, 243-45; contracts in, 231-32; cost of, to be estimated, 232; financing of, 242-43; groups concerned in, 226; health considerations in, 250-61; information on, 226-27; need of, 223-33; standards for, 245-46; suggestions to householders on, 234-71; and modernizing (illus.), facing 260
- Home modernizing. *See* Modernizing
- Home reconditioning. *See* Reconditioning
- Home remodeling. *See* Remodeling
- Homes: "broken," and delinquency, 120, 169, (table) 170, 171; "broken," as psychologic basis for crime, 162-71, 171fn; delinquency according to parental conditions in, 166; delinquency reduced by good, 162-63; delinquents in various types of, 165; farm, need of, for city delinquents, 166; immigrant, lower standard of living in, 124; overcrowded, effect of, 143-44
- Hookworm disease, relation of housing facilities to, 6-7
- Hoover, Herbert, President of the United States, 223, 224, 225
- Horwood, M. P., 4fn
- House: as social unit of neighborhood, 147; condition of, points indicating, 235-38; "diseases," 4; equipment, standards for, 227; exterior, standards for, 227-28; grounds, standards for, 228; groups, improvement of, 243-45; interior, fire safety in, 59-60; interior, remodeling of, 261-69; interior, standards for, 227; plans, alterations in, 244
- "House Design, Construction and Equipment," 270fn
- "Household Management and Kitchens," 266fn, 268fn
- Householders, suggestions to, on home improvements, 234-71
- Houses: life term of, 234-35; old, modernization of, 261-62
- Housing: a primary need, 147-48; as factor in crime causation, 13-19, 112, 197-98, 198fn; associations, co-operation of, 102; city planning and zoning, 101-2; congestion, 155-56, 158, 159-60, 176; factors affecting health, 250; improved, effect of, 87; in New York, 157; institute, national, recommended, 232; isolation of, as factor in delinquency, 49; lack of data on, in crime causation, 197, 197fn; moral betterment through better, 152; standards, 226-28; and citizenship, 86-93, 102-4; and conduct, 150; and crime, guide for selection of materials on, 106; and crime causation, digest of recent materials on, 105-200; and delinquency, 3, 13-49, 140-41, 146, 154, 158-59, 160-61, 188, 197; and disease, 1-2, 3-8, 10; and education, 93-97; and health, 4-12, 148, 150-51, 250; and industrial efficiency, 50-53; and recreation, 97-102, 104; and safety, 2, 54-85; and

- school work, 94-95; and the community, 1-104; and the family, 12
- Housing, bad: as physical basis for crime, 143-62, 162fn; effects of, 150; "expulsive factor" of, 151-52; and bad citizenship, 158; and delinquency, 146, 158-59, 160-61, 197; and truancy, 156
- Housing and Town Planning Act, 1909, 87
- Hull House, 92
- Hurry, J. B., 16fn
- Illinois Association for Criminal Justice, 133fn, 135fn, 138fn, 160fn
- Illinois Crime Survey, 133fn, 135fn, 138fn, 160fn, 179
- Illinois Wesleyan University, 181fn
- Immigrant: children, and English language, 124; children, and environment, 122, 123; children, in criminal ranks, 123; effect of slum conditions on, 92; family, breakdown of, 124; groups in areas of disorganization, 137-38; homes, 121-22, 124; movement of, affecting delinquency rates, 127; parents, loss of control of children by, 121; settlement, low rents factor in, 133; and Negroes, settlement of, in deteriorating sections, 136
- Immigration and crime, 121
- Immorality and overcrowding, 153-54
- Improvements, general, check-list for, 278
- Improvements, home. *See* Home improvement
- Income, family, in homes of delinquents, 172
- Indiana University, 110fn, 173fn
- Individual: aspects of crime causation, 185-95, 188fn; in delinquency, 118, 188
- Industrial: centers, in Chicago, 33-34; efficiency, and housing, 50-53; management, belief of, regarding poor housing, 51
- Industrial Conference, 1920, 51
- Infant mortality and housing, 8
- Inferiority and crime, 187
- Inherited: tendencies, inner urges, or desires in crime causation, 185-87, 187fn; and environmental factors in delinquency, 117-18
- Injuries: home, (table) 201, (table) 202, 217-21; and deaths as result of fires (table), 206
- Inner urges and crime causation, 185-87, 187fn
- Inspection: home, 229; check-list, 272-78; prepurchase, 235-36
- Institute for Juvenile Research, 115fn, 143fn, 169fn, 171fn, 198fn
- Institute, national housing, 232
- Intelligence: factor in crime, 190; in delinquency, 119-20, 194; level in slums, 133, 189, 190
- Interior, house: reconditioning of (illus.), facing 261; remodeling, 261-69; safety against fire in, 59-60; standards for, 227
- Irwin, 190
- "Isolation areas," 142
- Ives, J. E., 4fn
- Jackson Heights, N. Y., 100
- Jewish Charities, Chicago, Ill., 44
- Johns Hopkins University, 52fn
- Juvenile Court, Cook County, Ill., 23, 26, 47
- Kansas City, Mo., 100
- Kennedy, A. J., 98, 199
- Kings County, N. Y., 153fn, 178fn, 181fn, 182fn
- Kitchen: arrangement of, 268-69; decoration of, 266-68; equipment of, 266-69; improvement, 273-74; remodeling of, 266-69
- Kneeland, G. J., 199
- Knowles, Morris, Inc., 50
- Kohler, Wis., 100
- Kuhlman, 106
- Labor: organized, belief of, regarding good housing, 51-52; turnover, and housing, 56, 57
- Ladders, hazards in use of, 71
- Laignel-Lavastine, 195
- Lamont, R. P., 225
- Landesco, J., 199
- Landlords, absentee, 157
- Lane, W. D., 109fn
- Language, English, and immigrant, 124
- Laspeyres, E., 150
- Legislation: for safety, 55, 83-85; regarding neighborhood units, 104; traffic, 81
- Leisure: -time activities and crime, 185; time and delinquency, 183; use of, 179-85, 185fn
- Leonard, C. M., 200
- Lewis, B. G., 200
- Liability, fire-, individual, 84-85

- Lighting: electric, 269-70; and health, 9-10  
 Lightning arresters, 61, 66  
 Liverpool, England, 49, 87, 87fn, 152  
 Living room: improvement, 274-75; large, desirability of, 263; "out-door," developing of, 255-58; rear location of, 261  
 Living standard in immigrant homes, 124  
 Lloyd, M. G., 2, 54fn  
 Lodgen, G. E., 105fn  
 Lodgers, 146, 158  
 Lodgings, suitable, 145-46  
 Lombroso, C., 200  
 London, England, 49, 87, 111fn, 140, 148fn, 149, 149fn, 162fn, 185, 193, 196  
 Lumpkin, 114fn  
 Lurie, L. A., 200
- MacCunn, 150  
 Magnusson, L., 53, 53fn  
 Malaria, and housing facilities, 7  
 Manchester, N. H., 148fn  
 Manhattan, N. Y., 130fn, 146, 155, 156, 157, 157fn, 158fn, 159fn, 160fn, 178, 183, 183fn, 184, 184fn, 185  
 Marion County, Ind., 166fn  
 Marks, 190  
 Massachusetts Reformatory, 123fn, 140fn, 167fn, 176fn, 190fn, 195fn  
 Master, J. M., 105fn  
 McIntyre, 174  
 McKay, H. D., 14fn, 26fn, 200  
 Medicine chest for first-aid, 11  
 Mendum, G., 200  
 Mental: capacity of criminals, 190; deficiency in crime causation, 189-91, 191fn  
 Metropolitan Life Insurance Company, 202fn, 217, 217fn  
 Michigan Housing Association, 95, 95fn, 103  
 Miller, J., 200  
 Minneapolis, Minn., 132fn, 149fn, 196fn  
 Modernizing, home: 230-32; financing of, 232, 242-43; value of, 238-45; and improvement (illus.), facing 260. *See also* Reconditioning  
 Moley, R., 155fn, 156fn  
 Morality, influence of dwelling upon, 150, 163  
 Morrison, 174  
 Mothers' Pension Act, Illinois, 47  
 Moulton, R. S., 54fn
- Municipal Court, Boston, Mass., 191fn  
 Myers, E. D., 200
- National Board of Fire Underwriters, 57, 84, 208fn, 209fn, 222, 248  
 National Bureau of Casualty and Surety Underwriters, 85  
 National Child Labor Committee, 180  
 National Commission on Law Observation and Enforcement, 14fn, 26fn, 37fn, 40fn, 44fn, 46fn, 91, 91fn, 92fn, 114fn, 115fn, 120fn, 121fn, 127fn, 142fn, 143fn, 162fn, 168fn, 169fn, 171fn, 191fn, 195fn, 198fn  
 National Committee for Mental Hygiene, 198  
 National Conference of Social Work, 124fn, 188fn  
 National Conference on Street and Highway Safety, 82  
 National Electrical Code, 65  
 National Electrical Safety Code, 65  
 National Fire Protection Association, 56, 76, 78, 83, 206fn, 207fn, 208fn, 209fn, 210fn, 211fn, 212fn, 213fn, 222  
 National Geographic Magazine, 239  
 National Housing Association, 147fn  
 National Industrial Conference Board, 50  
 National Recreation Association, 183fn  
 National Safety Council, 53, 53fn, 55, 82, 201, 201fn, 204fn, 217fn, 222  
 National Urban League, 127fn  
 National Women's Trade Union League of America, 52  
 Nationality and crime, 126-27  
 Negro districts, 130-31  
 Negroes: 126-27; and immigrants, 136  
 Neighborhood: betterment, 224; community, 101; facilities for use of spare time, 180; factor in delinquency, 139, 141; house as social unit of, 147; in individual development, 97-102; influence of, on home, 86-87, 140; mobility of, 131; organization, breakdown of, 125; unit, principles for developing, 100-1; unit, and delinquency, 47-48, 139; units, development of, recommended, 104; units, legislation regarding, 104

- Neighborhoods: areas or districts in criminality, 134-43, 143fn; reclaiming of, 243-44  
 New Orleans, La., 182  
 New York, N. Y., 2, 2fn, 49, 50, 57, 88, 88fn, 95, 99, 100, 100fn, 103, 109fn, 117fn, 120fn, 121fn, 129fn, 132, 134, 140, 146, 147fn, 154fn, 155fn, 156fn, 157, 157fn, 158, 158fn, 159fn, 160fn, 172, 172fn, 176, 179, 180, 180fn, 183, 183fn, 184fn, 212, 243  
 New York City Public Schools, 178fn  
 New York City Workhouse, 109fn  
 New York Commission of Housing and Regional Planning, 155, 200  
 New York Commissioner of Correction, 129fn, 180fn  
 New York County Penitentiary, 109fn  
 New York Magdalen Home, 109fn  
 New York Probation and Protective Association, 110fn, 177fn  
 New York State Board of Housing, 154, 155, 158  
 New York State Commission of Prisons, 116fn  
 New York State Department of Health, 204fn  
 New York State Housing Commission, 158  
 New York State Prison for Women, 109fn  
 New York State Reconstruction Commission, 157, 158, 160  
 New York State Reformatory for Women, 109fn  
 New York Tenement House Commission, 156, 160  
 New York Times, 141fn  
 New York Women's Night Courts, 109fn  
 Newark, N. J., 50  
 Newman, B. J., 86fn  
 Noise and health, 10  
 North Carolina Federation of Women's Clubs, 203fn  
 Nose, eye, ear defects, 192  
 Obsolescence: modernizing as remedy for, 231; studies of, 233  
 Occupation and delinquency, 174  
 Ogburn, W. F., 200  
 Oil burners, safety in, 63-64  
 Osler, 148fn  
 Outbuildings, remodeling of, 265-66  
 "Outdoor living room," 244, 255-58  
 Outlets, electric, 269  
 "Outside" rooms, 265-66  
 Overcrowding: 148fn, 158; as cause of spread of disease, 5; definition of, 5-6; effects of, 1-2, 52, 143-44, 145, 146, 151, 161-62; evils of, 5-6; in tenements, 151; of homes, 143-44; and delinquency, 20, 111fn, 144, 146, 149, 152-53, 196; and immorality, 153-54  
 Painting, reconditioning by, 236-38  
 Paints as poison hazard, 74  
 Panelboards, 65  
 Pantries, remodeling of, 265  
 Parental: attitude toward employment conditions of children, 172; conditions, and delinquency, 166, 168  
 Parking, restrictions in, to avoid street accidents, 80-81  
 Parsons, P. A., 200  
 Patrizi, M. L., 200  
 Perry, C. A., 2, 2fn, 3, 48, 86fn, 100fn  
 Peterson, A. L., 50fn  
 Phelan, V. B., 236fn, 251fn  
 Philadelphia, Pa., 26, 87, 95, 102, 211  
 Physical or organic defects or abnormality as factor in crime causation, 191-95, 195fn  
 Pilcher, E., 200  
 Pittsburgh, Pa., 50, 87, 95, 97, 99, 102  
 Plague, and housing facilities, 7  
 "Planning for Residential Districts," 2fn, 48fn  
 Play: areas and delinquency, 182, 183-84, 185; instinct for, and delinquency, 179-80; space, effect of restriction of, 129  
 Playground and Community Service Commission of New Orleans, 182  
 Playgrounds: influence of, on delinquency, 182-83; need of, to reduce street accidents, 80  
 Playrooms, 263-64  
 Playyards 258-59  
 Ploscowe, M., 200  
 Plumbing: health standards, 251-53; improvement, 273  
 Poisons, home use of, 74-75  
 Political, social, and economic factors in crime causation, 114-15  
 Population: areas of increase and decrease in, Chicago (figure), 38; density, and delinquency, 39-40, 142-43, 196; increase and decrease, and delinquency rates, 36-40, (table) 37  
 Porch: addition of, 253-55; advan-



- tages of, 259-60; location of, 259-60; railings for, 62; second-floor sleeping, 262-63
- Porter, 148fn
- Poverty: effects of, 173; and delinquency, 140, 174, 175; and recidivism of convicts, 172-73; and truancy, 176
- Pratt, J. H., 1fn
- President's Organization on Unemployment Relief, 233
- Property losses by fire, 54, (table) 208
- Prudential Life Insurance Company, 50
- Psychopathy and crime, 194
- Public opinion and crime, 122
- Race and crime, 126-27
- Radburn, N. J., (illus.) frontispiece, 79, (illus.) facing 80, 99, 100, 103
- Railings as safety factor, 62, 249
- Rat-proofing, 2
- Recommendations: 2, 12, 48, 53, 84-85, 104, 232-33, 248
- Reconditioning: appraisal preliminary to, 241-42; blighted areas, 104; by painting, 236-38; community organization for stimulation of, 233; conditions indicating need for, 235-38; conditions justifying, 239; examples of unwise, 238-39; factors to consider in, 240; financing of, 242-43; fundamentals in, 235-38; periodic necessity of, 234-35; safety as reason for, 246-50
- Reconditioning, home: (illus.) facing 228, 228-30, (illus.) facing 261; inspection and repairs in, 229; maintenance allowance for, 228; repair items in, 228-29; rural (illus.), facing 229; study required for, 228; workmanship in, 229-30
- Reconditioning, remodeling and modernizing: 223-78; advantages of, 225-26; as stimulant to employment, 226; groups concerned with promotion of, 226; handbook on, preparation of, recommended, 223; housing standards as measure of need for, 227-28; national central organization for, 233; need for material on, 225; promotion of, for unemployment relief, 233; recommendations of Committee on, 232-33; retardation of depreciation and obsolescence by, 230; social and economic value of, 225-26; statement concerning essential facts of, 224-25
- Recreation: as essential of family life, 97-98; development of adequate facilities for, 104; room, basement, 264; spaces, in reducing delinquency, 183; and crime, 179-85, 185fn; and housing, 97-102
- Recreational activities and delinquency, 181
- Reformatories, conclusions from study of 7,500 boys in, 164
- Reformatory for Women, Bedford Hills, N. Y., 121fn, 147fn, 172fn
- Regional Plan of New York and Its Environs, committee on, 2fn, 48fn, 100, 100fn, 182, 200
- Reid, I. DeA., 200
- Remodeling: by blocks of houses, 243-45; conditions justifying, 239; for sunlight, 253-55; examples of unwise, 238-39; financing of, 242-43; home, and repair, 223-78; home, value of, 238-45; interior arrangements in, 261-69; kitchen, 266-69; study prerequisite to, 241-42. *See also* Reconditioning
- Rents, 3, 133
- Repair, home, and remodeling, 223-78
- Repartitioning of rooms, 262-63
- Residence of delinquents, 138, 157
- Residential: areas, rate of delinquents in, 138; development for street safety (illus.), facing 80; development on community basis, amenities from (illus.), frontispiece; districts, street accidents in, 79-81
- Richmond, Va., 26
- Riis, J. A., 88, 120fn, 129fn
- Riseman, G. N., 105fn
- Rockefeller, J. D., Jr., 103
- Rockland County, N. Y., 188, 188fn
- Rodents, and disease, 7
- Roof exterior, improvement, 276-77
- Rooms: rearrangement of, 263; repartitioning of, 262-63
- Rosenau, M. J., 1, 4fn
- Rot, hazards through, 249
- Rubbish, disposition of, 72-73
- Rural homes: advantages of, 3; reconditioning of (illus.), facing 229
- Russell Sage Foundation, 131fn, 144fn, 182
- Safety: as reason for reconditioning, 246-50; domestic, teaching of, 221; education and community organi-

- zation for, 81-83; factors in home construction and maintenance, 249-50; home, 70-76; legislation for, 55, 83-85; references on, 222; research on, 85; street, residential development for, (illus.) frontispiece, (illus.) facing 80; and housing, 2, 54-85
- Saint Paul, Minn., 132fn, 149fn, 196fn
- San Quentin Prison, 192fn
- Sanitary requirements, 5
- Sayers, R. R., 50fn
- School: children, home accidents to (table), 201; work, and housing conditions, 94-95
- Schools: housing instruction in, 104; location of, to avoid street accidents, 80; safety education in, 81-82; teaching of home values in, 96-97; and "broken homes," 170-71
- Seattle, Wash., 26
- Seiberling, F. A., 52, 52fn
- Sewerage system, adequate, 9
- Sex delinquency and overcrowding, 144, 146, 153
- Shaw, C. R., 3, 13fn, 14fn, 23fn, 26fn, 33fn, 89, 89fn, 90, 90fn, 200
- Shideler, 169
- Shulman, H. M., 200
- Sing Sing Prison, 117fn, 127fn
- Slawson, J., 169, 200
- Sleeping porches, 253-54
- Slum: areas, and character, 135; areas, and delinquency, 133-34; 138; as deterrent to good citizenship, 86-93; characteristics of, 140; clearance, in Boston, 87-88; clearance and rebuilding, effect of, on inhabitants, 87; dwellers, intelligence level of, 189, 190; home of urban delinquent child, 138; structures, result of exploitation, 156
- Slums: elimination of, 86; sociological problem of family life in, 133
- Smillie, W. G., 4fn
- Smith, A. E., 157
- Smoke, effect of, on health, 10
- Social: aspects of housing and crime causation, 120-29; conditions, and business fluctuations, 127-28; conditions and crime, 109, 113, 128; control, community as unit of, 137; development, conditioned by community structure, 120-21; environment, influence of, on juvenile mind, 187; force, measurement of, 127-28; influence in crime, 120; influences in delinquency, 115fn; instinct and gangs, 180; inter-  
course, street as place of, 159; life in crime causation, 108; order, function of family in, 166; patterns affecting the gang, 122-23; patterns, transmission of, in delinquency areas, 142-43; sciences, concept of crime causation in, 108-20; setting, study of delinquent as person in, 139; standards and juvenile delinquency, 125; unit of neighborhood, house as, 147; work, home the center of, 163; workers, safety education through, 83; and economic and political factors in crime causation, 114-15; and economic value of reconditioning, remodeling and modernizing, 225-26
- Social Science Abstracts, 107
- "Socially defective tendencies," 194-95
- Societal forces and standards in crime causation, 120-21, 121fn
- Spaeth, R. A., 52, 52fn
- Stairs, hazards of, 70, 249
- Stairway: design of, for safety, 61-62; improvement, 275; lighting of, 62
- Standards: home improvement, 245-46; housing, 226-28; plumbing, 251-53
- Stanley, L. L., 200
- Stearns, A. W., 13fn
- Stoves, safety in, 63-64
- Street accidents, 79-81
- Streets: as place of social intercourse, 159; planning of, to reduce accidents, 79-80
- Sunlight, health value of, 250, 253-55
- Sunnyside Gardens, N. Y., 100, 103
- Sun room, addition of, 253-54
- Sutherland, E. H., 13fn, 200
- Tait, W. D., 200
- Taylor, G., 102
- Tenements: as vice resorts, 146-47; character of, under old law, 156-57; demolition of, 160-61; overcrowding in, 151
- Terman-Binet intelligence tests, 190
- Thom, 198
- Thrasher, F. M., 90, 90fn, 160, 200
- Thurston, H. W., 200
- Timmons, B. F., 200
- Toledo, Ohio, 79
- Traffic regulations and street accidents, 81
- "Transition areas": 141-42; delinquency in, 131-32, 135-36

- Travelers Insurance Company, 201, 202  
 Travis, T., 200  
 Trellis, construction of, 257-58  
 Truancy: solution of, 134; and housing congestion, 155-56, 176; and poverty, 176  
 Truitt, R. P., 200  
 Truxal, A. G., 183, 184, 185fn, 200  
 Tuberculosis and housing, 6  
 Tufts, J. P., 86fn  
 Typhoid fever and housing, 6  
 Typhus fever and housing, 7-8  
  
 Underwriters' Laboratories, Inc., 222  
 Unemployment, community organization for home modernizing as measure against, 233  
 Union Health Center, 50  
 United Charities, Chicago, Ill., 44  
 United States Bureau of Labor Statistics, 53, 53fn  
 United States Bureau of Standards, 61, 203fn, 222, 241fn  
 United States Bureau of the Census, 56, 205fn, 223  
 United States Children's Bureau, 139fn, 147fn  
 United States Daily, 204fn  
 United States Department of Agriculture, 78, 234, 248, 249  
 United States Department of Commerce, 84, 84fn, 241fn, 251fn  
 United States Department of Labor, 96  
 United States Immigration Commission, 200  
 United States Public Health Service, 50  
 United States Steel Corporation, 50  
 University of Chicago, 85  
 University of Ohio, 166fn  
 University of Texas, 124fn  
  
 Van Waters, M., 200  
 Vancouver, British Columbia, 51, 51fn  
 Venereal diseases, and housing, 8  
  
 Ventilation, 9, 250-51  
 Vermin, and disease, 7  
 Vice resorts, tenements as, 146-47  
 "Vicious-circle" concept of crime causation, 15-16  
  
 Wacker's "Manual," 96  
 Waldo, R. J., 53, 53fn  
 Walls: exterior, improvement, 272; treatment for, 237; switches in bathroom, 65  
 Washing machines, safety in, 68  
 Washington, D. C., 2, 50, 95  
 Waste disposal, 9  
 Water: heaters, portable, hazards in, 75; supply, 9, 77-78  
 Waukesha, Wis., 177fn  
 Waverly House, 110fn, 177fn  
 Welfare Council of New York City, 119  
 White, E. N., 86fn  
 White, E. W., 3, 86fn  
 White House Conference on Child Health and Protection, 93, 93fn  
 Widener Memorial Library, Harvard University, 106  
 Wile, I. S., 200  
 Wilkes-Barre, Pa., 124fn  
 Williams, H. D., 200  
 Williams, J. H., 200  
 Williams, S. J., 54fn  
 Williamson, 148fn  
 Willison, E. E., 4fn  
 Wines, F. H., 200  
 Wiring, electric, improvement, 273  
 Wirth, L., 200  
 Wisconsin Industrial School, 177fn  
 Woods, R. A., 200  
 Worcester, Mass., 3  
 Workmanship, in reconditioning, 229-30  
  
 Yards, development of, 255-58  
  
 Zones, delinquency rates of, in Chicago, 29-33  
 Zoning, city planning and housing, relationship between, 101-2  
 Zoning map of Chicago (figure), 32





